THE INVESTMENTS OF LIFE INSURANCE COMPANIES

ZARTMAN

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NEW YORK
HENRY HOLT AND COMPANY
1907

Published December, 1906

PREFACE.

The subject of this book was chosen in 1903 at a time when insurance questions did not command much public attention. Since then has appeared the present almost feverish interest in problems of insurance. There had long been, however, in insurance circles rumors that the funds of certain life companies were being improperly used. It was therefore one purpose among many others in making this study to investigate these rumors.

Before the work was completed, such an inquiry was rendered largely unnecessary by the official investigation by a committee of the New York Legislature. Consequently in the present book little emphasis is laid upon that phase of the subject, and we have been enabled to devote a larger part of our attention to the more congenial task of tracing the beneficent influences which life insurance accumulations have exercised upon the economic development of the country and the relation of those accumulations to social welfare.

The calculations employed in chapter three are so laborious and intricate that errors may quite possibly have crept in; for the computation of these rates by the method adopted required a repetition of the process of finding one annual rate as described on page seventy-two

some five thousand times. Great care has been taken, however, to verify the calculations.

For much aid in the preparation of the statistical tables and in the gathering of data, I am indebted to my wife. I am also under obligations to Professor Irving Fisher of Yale University, who has read the manuscript and to whose criticisms and suggestions much of the work in its final form is due, and to Professors David Kinley and Maurice H. Robinson of the University of Illinois, who in the early stages of the work rendered me much assistance.

Finally, I wish to express my thanks to the Faculty of the Department of Political Economy in Yale University for permission to incorporate in this book its prototype, my thesis for the degree of Doctor of Philosophy.

LESTER W. ZARTMAN.

NEW HAVEN, CONN., *November*, 1906.

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CHAPTER I.

INTRODUCTION.

Life insurance has come to occupy an important place in our economic development. This has come about only in recent times. Just as there are men living who have witnessed the great development of railroad transportation, there are men who have seen life insurance begin with a few companies and reach the commanding position of the present day. True it is that before the Revolutionary War, a small band of clergymen organised a company for the purpose of paying death benefits, a company still existing, but it was not at that time conducted on the principle of the present day companies, nor did it fill an important place in the life of that time. During the colonial period and up to 1800, there was some life insurance business done, but it was carried on by individual underwriters and the number of policies written was exceedingly small.

After 1800 companies began to be organised to carry on the business of life insurance. Up to 1835, no company was organised and succeeded which had for its sole purpose the insuring of lives, but three important trust companies of the present day were incorporated between 1812 and 1833 which had the power among others of insuring lives. All three for some time did do a small life insurance business. In addition to these three trust and insurance companies combined, a number of the more prominent fire insurance companies did some writing of life insurance. However, all the companies were proprietary companies organised chiefly for other purposes than life insurance and so far as they influenced life insurance history in this country did little more than to prove definitely that insurance of lives could be carried out as a business proposition. The thirty-five years following 1800 can best be designated as the experimental period in the business in the United States.

The year 1835 has been selected as marking the beginning of a new epoch in life insurance history, for in that year the first company proposing to do business on a mutual basis was incorporated. On April 1, 1835 the New England Mutual was incorporated, and though it did not commence business until several years later, it is the oldest mutual company doing a regular insurance business. In 1841 the company which later

became the New York Life was incorporated, and in the following year the Mutual Life was organised. Before 1850, eight more companies were started on a permanent basis, making eleven companies doing a life insurance business at that date, the permanency of whose foundation is evidenced by the fact that all of them are in active competition at the present time.

Life insurance was thus firmly established in this country by 1850. Successful companies had been organised and for the next twenty years the business grew by leaps and bounds. The one million dollars of assets possessed by the few companies at the end of 1843 doubled oftener than once in four years, amounting in 1867 to one hundred and twenty-four million dollars. Part of this great growth was unhealthy. From 1860 to 1870 life insurance had been fostered by the speculative fever then prevalent and by the unsettled condition of the country in general. Like in all other lines of business at that time, a period of depression ensued, and the life insurance business did not prosper any from 1870 to 1880. After 1880 a steady growth set in which continuing has placed the United States far in the lead of the nations in regard to life insurance interests. Possessing nine hundred millions worth of assets in 1892, the companies had more than doubled that amount by the end of the century, and at the present time the combined assets of the life insur-

ance companies in this country are valued at nearly three billion dollars.

These figures indicate the important position that life insurance has come to fill in the United States during the last half century. Great companies have grown up with large assets which have exercised a tremendous influence upon the country's development. The life insurance companies have been agencies by means of which large sums of capital have been saved, and this capital once in the possession of the companies has been invested in mortgages on farms and on city realty, in the securities of railroads and of banks, has been loaned to individuals on collateral security and in other ways been placed at interest. Hence, must life insurance be considered not only as a great social factor because of the system of indemnity it affords, but also from the standpoint of the saving of capital which it has effected.

All these beneficial results have not been accomplished without some loss. There have been failures of insurance companies, more failures than successes, though the influence of such failures cannot be compared with the influence of the companies that have succeeded. Other companies have been mismanaged, and because people on account of the peculiar nature of life insurance are not able to protect themselves, the states have been forced into much activity in regard to insurance affairs. Legislatures have found it necessary to

throw many restrictions around the business in order that justice might be done to the purchasers of insurance.

The immense assets which the companies have accumulated have offered a tempting field for taxation. With uniformily bad tax laws in general, coupled with a lack of knowledge of life insurance in particular, the various states have levied direct and indirect taxes upon the life insurance assets which in many cases have been unjust and have hindered the development of the business. Thus confronted with the problems of regulating the insurance business and at the same time of taxing it, legislatures have spent much time during the last half-century on insurance matters.

In the following chapters, company management, legal regulation, taxation and kindred questions will be studied so far as they are concerned with the assets and their investment. The material for such a study is found in scattered sources. There is no considerable body of literature treating of the insurance business, if we except that dealing with its theoretical side. The actuarial branch of the business has been worked out so fully that little remains to be done, but concerning the practical problems confronting the business, only within a few years has anything been written in book form. The official state reports of the condition of the companies are by far the best source of information con-

concerning certain phases of the business. The greatest trouble with them is that companies have misrepresented their real condition to the state officials year after year without apparent detection, but even so, for a history of the investments the state reports are invaluable.

Outside of the state reports, there is the insurance press as a source of material. In the files of the insurance papers and magazines can be found much data on almost any insurance question. This is especially true of the early history of the business, for at that time the insurance papers possessed more of the characteristics of technical publications than they do at present. The papers have increased greatly in number, but in the multiplication of numbers and the change from monthly publications to weeklies, they have become merely newspapers devoted to the interests of agents and contain little of general or permanent interest. Throughout the history of the business there have been certain exceptions to this criticism, and in the files of some of the publications and in the transactions of various actuarial societies, the material for the following chapters has been gathered.

Just a word as to the importance of life insurance history. Insurance is a business which should last as long as men die during the productive years of their life. It is a business which once started cannot sud-

denly be dropped with justice to the whole body which has entered into the relation involved in insurance contracts. Therefore, the history of it should be studied so that in the future the mistakes of the past might be avoided. The success of a company cannot be measured by its accomplishments during the lifetime of one man, unless that success be built on a foundation which shall stand the test of generations. If information of the past were complete, most valuable and trustworthy conclusions might be drawn as to the causes which lead to the prosperity or the decline of individual life offices and doubtless many mistakes in management and regulation could be avoided.

With the emphasising of one point in life insurance history this introductory chapter will end. There is a wide-spread feeling that the revelations which have been made in New York during the summer of 1905 will prove such an object lesson to company managers and to policy-holders that the business for years will be run in a much better way. This feeling is not justified by a study of history. Revelations have been made before concerning insurance companies which were just as scandalous as those made during the past summer. The result was a change in management just as there has been changes in managements recently, and the public was led to believe that the newly-managed company would be conducted on a high standard of effi-

ciency. In some cases this has been done. In others, the management has become just as false to the interests of the policy-holders as was the previous management. Therefore, there is no real justification for the feeling of security which now seems to exist. The old managements have been revealed in their misdeeds and forced out of the companies, new officials have been put in with many proclamations of future good service. With all due regard for the character of these particular individuals it should be said that the same dangers are likely to arise again. There are still stock companies in which the policy-holders have no control whatever, it remains to be seen whether under revised laws the policy-holders are going to exercise any real control over their companies, and whether any system can be devised that will change the apathetic attitude which the insuring public has always taken towards insurance management save at the time of some great agitation. Periodical investigations and temporary reforms will be the rule so long as policy-holders do not exercise an active control in company affairs.

CHAPTER II.

THE CHARACTER OF THE INVESTMENTS.

To find suitable investments for the funds which have come under their control has been a serious undertaking for the officials of level premium companies from the inauguration of that system of life insurance. In the early days of the larger companies and of new companies of to-day, the great problem has been to get insurance in force. That problem has been solved with signal success, and, as a result, the funds which must be accumulated at compound interest have grown rapidly. As the assets have increased in amount until they have reached a value of millions and even hundreds of millions of dollars the investment side of the business has become one of almost supreme importance. Because of the gigantic size of the assets great skill is demanded for their proper investment.

One condition must always be met by all level premium companies, both large and small; the assets must be invested in such a way that at all times they will have a market value equal at least to the reserve upon the policies. This is required by law. More than this

is demanded by the policy-holders. Few of these have been content in the past with the assets earning simply the minimum rate of interest. The higher the rate of interest earned, the larger will be the dividends declared to the participating policy-holders. Therefore, the officials in charge of the assets have been required to invest the funds not only so as to keep them at a certain market value, but to make them earn as high a rate of interest as possible. Confronted by this double problem, investment managers of different companies have solved it in different ways.

Not only have the managers of different companies solved the investment problem in different ways, but those of the same company have seen fit to change the character of their investments from year to year. It is the purpose of the present chapter to study these differences in the character of the assets both from the standpoint of differences between the companies and more especially of differences between the showing of the years.

To go back in the history of the companies as far as possible takes us back to the time when there were no state insurance departments. The information which the official reports now give must be secured for the early years from the reports issued by the companies themselves. Analysing some of these reports to see of what the assets at that time consisted, we find that the

Connecticut Mutual and the Mutual Benefit, two of the large companies of the fifties, had in 1851 fifty-six per cent. of their assets consisting of premium notes. This percentage of notes shows well the manner in which life insurance was then conducted. A considerable portion of the premium was received in the shape of a note given by the policy-holder and bearing interest. As this portion of the premiums came to the companies already invested, we can pass over this asset quickly and see how that portion of the premium which came to the companies in cash was invested. Of the net invested assets of these two large companies fifty-nine per cent. was invested in loans on real estate.[1] Half of the remaining invested assets consisted of city bonds and bank stocks, and half of cash. At the end of 1854, the New England, the Manhattan, the United States, the New York, and the Mutual Benefit had two-thirds of their net invested assets consisting of mortgage loans.

The decade of the fifties was one of particularly sound growth in the new business of life insurance which had in the decades just preceding proven its possibilities. This is shown by the decreasing percentage which premium notes formed of the total assets. We have seen how the two large companies earlier in the decade had three-fifths of their assets in premium notes.

[1] See the Assurance Magazine, Volume III, 1853, pages 45 and 53.

In 1855, these two with five others had premium notes not averaging more than a quarter of their total assets. The invested assets were getting in better shape. Of these seven companies, eighty-five per cent. of their total invested assets consisted of mortgage loans. The remaining fifteen per cent. was composed of a few state and city bonds, and a little necessary cash. None possessed any real estate at all.

In 1858, the four big companies at that time, the Mutual of New York, the Mutual Benefit, the Connecticut Mutual, and the New York had only twenty-one per cent. of total assets consisting of premium notes. The largest company, the Mutual, was taking no notes at all. Eighty-eight per cent. of the remaining assets were invested in mortgage loans. Two of these companies did possess some real estate by the end of this year.

The foregoing percentages indicate in general the character of the assets during the period 1850-59. The premium note during the early part of the decade formed a large percentage of the assets, but it had decreased. Mortgage loans were the popular investment. The striking characteristic of the period is the almost entire absence of corporation securities. To be sure, several companies owned bank stocks, but the proportion they formed of the total assets was small.

There was likewise an almost entire absence of pub-

lic securities, some state and city securities alone being found among the assets. The four large companies, already pointed out, with nearly thirteen million dollars of assets possessed only three hundred and ten thousand dollars worth of such securities. The New England Mutual owned some manufacturing corporation stocks and bonds, and some railroad securities, and in the later years of the decade, the Connecticut Mutual invested in some railroad securities. Beyond this, such investments had scarcely extended.

Fortunately the period after 1859 is capable of more extended treatment. The information concerning the assets is much more complete. In that year, the New York Insurance Department was established and immediately began the policy of publishing annually with great detail the assets belonging to companies doing business in that state. Massachusetts was doing much the same thing. Other states soon adopted the plan and from these various reports the following tables have been compiled for twenty-nine companies. So far as possible statistics go back to 1860, but all of these twenty-nine largest companies of the present time were not existing in 1860, and some existing were doing business in states which did not require annual reports. The statistics are for the calendar years 1860, 1870, etc., taking the conditions on December 31 of each year.

DISTRIBUTION OF TOTAL ASSETS.

Kind of Assets.	1860	1870	1880	1890	1900
Cash Items	2.4	4.3	4.5	4.2	4.3
Deferred and Outstanding Premiums	3.1	5.3	1.0	1.7	1.7
Accrued Interest	1.4	1.2	1.5	.9	.9
Total Uninvested Assets.	6.9	10.8	7.0	6.8	6.9
Premium Notes	20.5	21.5	5.2	1.2	.9
Policy Loans	.0	.1	.1	1.6	3.7
Total Notes and Loans	20.5	21.6	5.3	2.8	4.6
Mortgage Loans	59.2	44.4	38.6	41.0	28.8
Real Estate	2.7	3.5	12.4	10.4	9.0
Collateral Loans	1.6	1.2	5.7	4.6	4.3
U. S. Bonds	3.1	9.1	8.7	.9	.4
Foreign Public Bonds	......	......	.0	1.2	3.4
State Bonds	.6	1.5	.3	.5	.6
County and Municipal Bonds	2.2	5.5	14.3	6.6	4.2
Total Public Bonds	5.9	16.1	23.4	9.2	8.6
Railroad Bonds	.8	1.2	4.7	21.2	28.8
Light and Water Bonds	......	.0	.0	.6	1.7
Miscellaneous Bonds	.1	.2	.0	.4	1.7
Total Corporation Bonds.	.9	1.4	4.7	22.4	32.2
Railroad Stocks	.5	.4	.4	2.3	2.5
Bank and Trust Co. Stock	1.6	1.1	1.0	1.2	2.7
Light and Water Co. Stock	.1	.0	.1	.1	.1
Miscellaneous Stock	.1	.0	.0	.4	.2
Total Stock	2.3	1.5	1.5	4.0	5.5
Total Corporation Bonds and Stocks	3.2	2.9	6.2	26.2	37.7

We have for the purpose of this study selected twenty-nine companies. Of these twenty-nine there are sixteen whose asset history is given in official reports as far back as 1860. These companies were becoming important financial institutions at the beginning of the Civil War period, having total assets of some twenty-three million dollars.

In the above table those items coming first might be

designated as uninvested assets. One of the most important items, cash, will be considered at length, not because of the proportion which the amount so designated forms of the total assets, but because it is the asset which has been mismanaged to a great extent. Total assets of twenty-three millions in 1860 divided by sixteen gave small average assets. Each company had to have some cash, and with assets thus scattered, we would expect to find cash forming a high percentage of the assets. As assets increased in size, and individual companies came to possess more than did all in 1860, we would further expect to find the proportion of cash decreasing. The table does show a considerable proportion of cash for the first decade, but instead of decreasing, that proportion had nearly doubled by 1870, and since then despite the great increase in the assets the proportion of cash has remained practically constant.

In theory, this cash asset consists, first, of the actual cash kept in the office which is needed by the company for its daily transactions such as death claims, premiums paid at home office, and similar expenses and income, the outcome of each day's business. Of course this amount brings in no revenue. Again the amount of money needed by a company for many of its current expenses may be deposited in a bank subject to check. These bank balances bring in some return. The third item of such cash assets consists of money awaiting in-

vestment. It is not possible to invest the premium reserves as soon as they come to the company, nor would it always be wise to do so. The loan market is not favourable at all times. If the company keeps the cash for a while, it may be able to make an investment with a higher interest return. Instead of keeping the cash in its own vaults, it is usually deposited in banks and trust companies which are willing to pay something for the temporary use of it.

Thus, daily business needs and idle funds awaiting investment require cash items. This is the explanation of such amounts. The policy is justifiable on the ground that by making deposits the interests of the policy-holders are best served. However, the theoretical explanation of such assets differs widely from the actual practice of a number of companies. If deposits are made of idle funds awaiting a more favourable opportunity for investment, and for this purpose alone, there ought to be years in which the deposits were large and others in which they were small. If the individual companies are examined, this condition will be found to exist in the majority of companies, but there are some whose amounts of cash deposited in banks and trust companies have not formed less than six, ten and even fifteen per cent. of their total assets, not for a single year or two years, but for even twenty consecutive years. Such large deposits cannot be explained on

the ground that they consist of funds awaiting investment. Therefore other reasons must be sought in explanation of this item.

It is sometimes argued that deposits are made in order that the insurance funds may be invested in securities not allowed by law. The legal regulations restricting the insurance companies, it is further argued, have confined them so narrowly that to get a better return on the assets, these are deposited in a trust company which is not hampered in its investments. On this ground the deposits could be justified. Legal regulation of investments has gone too far in this country, and if a management sees that it can obtain a higher rate of return through the agency of the trust company it is justified from the policy-holder's standpoint. The trust company does invest sometimes in undertakings involving considerable risk, but such risk is ordinarily compensated for by higher interest earnings. This justification of the deposits in trust companies is based on the idea that the insurance company receives the higher interest earnings, the reward for the greater risk involved. However, so far as can be learned the permanent deposits in the trust companies have not received as high a rate of interest as have the invested assets of the company making such deposits, and thus the insurance company has not been rewarded for its risk nor for its violation, in spirit at least, of the law.

However, it is argued that if the insurance company owns considerable stock in the trust company, it benefits through the higher dividends on that stock due to the insurance deposits. This would be true if the insurance company owned all the stock of the trust company, but when it owns only a portion of the stock, it is scarcely good business to place large deposits in a corporation in order that that corporation may pay high dividends on capital stock of which only a part is owned by the depositor who contributes the money which brings the large dividends.

The reason of the large steady cash deposits of certain of seven or eight companies can be explained on no other ground than the close affiliation existing in too many cases between the officials of the insurance companies with the banking or trust institutions. Officials of insurance companies have been financially interested in outside institutions and have used the money of the insurance companies to make these other enterprises successful. The other institution has been usually a trust company, but banks have been used for securing the same end. In some cases the officials of the trust company are officials of the insurance company, in other cases in addition to this interest, the insurance officials have been personal owners of considerable amounts of the capital stock of the institution which they have favoured with the deposit of funds under their care.

It would be impossible to determine how large a percentage the cash deposits ought to form of the total assets. If the statement of the real object of such deposits is correct, the percentage would be a fluctuating one. In times of high prices for securities considerable deposits could fitly be made which would be almost entirely withdrawn when prices of securities became lower. There are companies which have not reported cash assets in excess of two per cent. of total assets for many years, and the rate of investment earnings of these companies have been higher than of those companies with large deposits. However, that amount should be left to the officials despite the demand now for legal regulation of the amount. Undoubtedly the policy-holders have suffered because of the large deposits of certain companies, not because of any inherent defect in the use of deposits by the insurance companies, but because some managers have misused a legal privilege. Here is an admirable example of the difficulty encountered in the legal regulation of investments. The right to make deposits in banks and trust companies is a valuable one; when used by managers with the purpose of getting the best returns possible to the participating policy-holders, it is of considerable importance. Managers not so actuated have used the privilege to secure pecuniary gains for themselves or their friends.

The other uninvested assets require but little attention. Deferred and outstanding premiums formed too large a proportion of the assets in 1860, and with the great increase in business and in the formation of new companies which took place in the later sixties, there were companies which could not be declared solvent without counting in the amounts of deferred and outstanding premiums. In 1869, of all the companies reporting to the New York department, ten per cent. of their assets consisted of the doubtful sort, deferred and outstanding premiums.[1] In 1870, there were seventy-one companies doing business in New York, and of these there were twenty-three in the perilous position of not possessing interest-bearing securities equal to the reserve upon their outstanding policies.[2]

Such companies were ill-prepared to enter into the long and severe business depression which ensued. A number of the companies which had carried large amounts of deferred and outstanding premiums failed. Most of the others rapidly reduced their amounts and since 1870, deferred and outstanding premiums have not formed a large proportion of the total assets. One company alone in 1900 carried an amount of this form of assets sufficient to denote a marked weakness from the asset standpoint.

[1] T. B. Macaulay, Transactions of the Actuarial Society, Volume VIII, Number 9, page 29.

[2] Insurance Journal, Volume VIII, page 481.

Accrued interest has not formed any considerable percentage of the total assets at any time. With the change in the character of the assets from mortgage loans to bonds with the result of more frequent interest payments, the amount of accrued interest and rents has decreased. As a result we would find that the total uninvested assets would form a small proportion of the total assets were it not for the persistent policy of several companies to keep large cash deposits.

Premium notes as an insurance asset possess interest largely from a historical standpoint. For thirty years after the successful organisation of life insurance companies in the United States, the plan was generally adopted of allowing the insured to pay a part of his premium with an interest-bearing note. By 1869, the climax of one of the periods in life insurance history, nearly one-third of the assets of the companies consisted of premium notes. It is not necessary to consider at length the premium note as an asset. It came to the investment department of the companies from the insurance side of the business. As an asset, premium notes are valuable only as they cancel liabilities. This they can do so long as the notes of one individual do not exceed the reserve value of his policy. The premium note modifies the insurance contract so as to get the most insurance for the least money. For all essential purposes, a premium note policy is a natural premium

policy. Just as the natural premium system has proven unpopular, so the note system, when the public came to understand it, fell largely into disuse. The change in the character of insurance hastened the change from premium notes to an all-cash basis. In the sixties, endowment policies began to be written in large numbers for the first time. The premium note system which was not popular with full payment life policies became absurd when applied to endowment and limited life policies. In 1870, one-third of the companies doing business in Massachusetts were receiving no new premium notes.[1] Several of the others had reduced the maximum credit for which notes were allowed from fifty to forty per cent. of the premiums.

The objection to the premium note system is well illustrated by the experience of the seventies. The premium note policies lapsed in great numbers, and as a result of this and the determination of a number of the companies to abandon the plan, the percentage that such notes formed of the total assets was reduced from twenty-one in 1870 to five in 1880. The premium note system has not been entirely abandoned, but the companies using it have reduced the amount of credit given, so that save in the case of two or three companies, premium notes at present form an inconsiderable proportion of total assets.

[1] Massachusetts Insurance Report, 1870, p. XI.

Closely related to premium notes are policy loans. In 1860, only one of the companies under survey reported such an asset. Ten years later, nine companies were making policy loans, only one however, having enough of such loans to form any considerable proportion of its total assets. In 1880, two more companies reported policy loans, but the percentage of total assets was still small. By 1890, the plan of making loans with the policies as security began to be popular. Twenty companies had adopted the practise of making such loans. In the fierce competition to secure large amounts of insurance which took place during the nineties every company of the twenty-nine, save two, granted the privilege to policy-holders of making loans from their policy reserves. With most companies, a provision began to be inserted in the policy contracts concerning such loans. Policy-holders have taken advantage of the privilege granted them, and in 1900 policy loans formed nearly four per cent. of the total assets of the companies, and in 1904 more than seven per cent.

The point to be remembered about policy loans is that, like premium notes, they are an asset not sought by the men in charge of the assets, but come to the companies through conditions expressed in the policy. Therefore the amount which such loans will form depends upon conditions not under the control of the investment man-

ager. As a result the question has been raised whether this provision in every policy for loans will not sometime cause trouble to the companies. It has been suggested that during a financial depression this provision will be taken advantage of by so many policy-holders that companies might be embarrassed for cash. With their assets tied up in long time securities, and the market for such depressed, such a situation would be serious. However, companies which had a provision for loans in their policies during the nineties did not suffer any serious increase in the demand for policy loans. English companies have been making such loans for half a century without experiencing the difficulty which has been suggested.[1] The rate of interest charged for policy loans should not be stipulated in the policy. So far during the history of such loans such a course has seemed wise in view of the constantly decreasing rate of interest. The rate of interest may change, and with a rate stipulated in the policy near to the market rate, or under, the amount of such loans might increase too much.

As an investment, the security of policy loans is unquestioned. Likewise the rate of interest has been good, for the companies have placed it higher than the rate which they have been earning on their other assets.

[1] See Assurance Magazine 1858, Volume VII, page 251, and the Insurance Spectator 1893, Volume 51, page 268.

The serious objection to such loans lies in the fact that they, like premium notes, modify the insurance contract. The interest upon the loan added to the yearly premium for insurance makes the annual payment burdensome. Default of premium therefore is more likely to occur. As this is an objection from the insurance standpoint, not from the investment point of view, it can well be passed over. Policy loans ought not to absorb a much larger proportion of the assets than at present. Policy-holders will learn that by borrowing their reserves, they defeat the purpose of their insurance and will not want such loans.

So far the assets which have been considered have been of a peculiar character. Cash, deferred premiums, accrued interest, premium notes, and policy loans do not come to the company through any plan of the investment department. With the assets now to be considered, the proportion which they form of the total assets is in a large degree the result of definite action on the part of those in charge of the assets of the companies.

It was seen that during the decade 1850-60 mortgage loans formed the bulk of the assets. In view of the changes which have later taken place in the character of the assets, it is claimed that mortgages were the only outlet for the funds, that corporation securities were too scarce to absorb much insurance capital at that time.

It is true that corporation securities were scarce at that time compared with the present, but it must be remembered that the funds to be invested were extremely small compared with the present. The fifteen companies which we are considering did not have two billion dollars to invest in 1860, they had less than a million dollars apiece to place at interest.

With small assets in 1860, the officials of the companies invested their funds in mortgage loans. The table of totals shows that fifty-nine per cent. of the total assets were so invested at the end of the decade of the fifties. If only that part of the assets is considered which we have designated as invested assets it will be found that more than four-fifths of that amount consisted of mortgage loans. By 1864, the value of the mortgages held by companies doing business in New York had absolutely decreased two million dollars, despite the increase in the amount of total assets during the intervening four years. Mortgages in that year formed less than half the percentage of invested assets that they did in 1860. The reason for this remarkable change in the character of the assets lies in the Civil War. The United States debt increasing so enormously, and the greenback issues deranging prices, the government bonds could be purchased at a price which yielded a rate of interest in paper as high as ten per cent. The companies put practically all their available funds into

the purchase of the public securities. The investments in government bonds rose with the premium on gold and declined with the disappearance of that premium.

Interest had been rising before the Civil War. During the war it rose rapidly not only on government loans, but on all loans. When the premium on gold began to decrease, and the interest in paper on such securities fell, the insurance companies again sought mortgages on real estate for the investment of the reserves. Before the outbreak of the war the development of the Middle West had demanded large sums of capital, the rate of interest offered for capital was high, but Eastern capital was suspicious. Connecticut had not restricted her companies in regard to investments in mortgages, and by 1862 several Connecticut companies had considerable loans in Ohio and Illinois.[1] The Union Mutual likewise was loaning money on Illinois real estate. The New York companies not only were forbidden by state law to loan in the West, but in every state except New York. This New York statute caused much discussion both in the East and in the West. However, whether through loans in the East or in the West, mortgage loans increased in proportion to total assets after 1864.

Mortgage loans continued to increase both absolutely and relatively. So far the companies had found no

[1] New York Insurance Report, 1863.

outlet for their funds so suitable as loans on real estate when government bonds were not to be had at a low price. For the companies as a whole this relative increase in mortgage loans continued until 1875, the absolute increase continued one year later, and then mortgages not only declined relatively but in absolute amount. It was nine years after 1876 before the life insurance companies again possessed as many mortgage loans as they did in that year.

The New York companies first began to decrease the amount of their mortgage loans. In 1875, the Equitable had seventeen million dollars invested in real estate loans, in 1880 it had nine million. The New York Life dropped from seventeen millions in 1875 to fourteen millions in 1878. The Mutual, the early big company, which had almost from its incorporation placed all its available funds in mortgage loans, decreased its holding of such assets seven million dollars during these five years. In fact during the last half of the decade of the seventies every New York company except the Washington decreased the amount of its loans on real estate security.

The cause of this change in the character of the assets lay in the depreciation in real estate values which set in with especial violence in New York during 1874, 1875 and 1876. Before the panic of 1873, there had been much speculation in land values especially in

New York City. When the depression in values came on values decreased to such an extent that a considerable part of the property mortgaged could not be sold for the fifty per cent. of its former value, the percentage to which the companies had loaned upon it.[1] Foreclosure was avoided as much as possible, but much real estate came into the possession of the companies.

The companies of states which were allowed to invest in mortgages outside of their own home state did not suffer so quickly from the depression in values as did New York companies which were restricted to New York. The Connecticut companies continued to increase the amount of their mortgage loans during the period 1874-76 when the depression was the most severe in New York. The Aetna, the Connecticut Mutual and the Phœnix increased their mortgage loans through 1875, 1876, and 1877. However, as the depression in values spread each one was forced to foreclose mortgages to a greater or less extent, and each of these three companies possessed smaller amounts of mortgage loans in 1880 than they did in 1877. The Aetna which had placed a great part of its loans on small amounts on farm property did not suffer much, but the Connecticut Mutual which had loaned large amounts on city property had quite a different experience. In 1877 the company

[1] The Insurance Spectator, 1876, Volume 17, page 585.

had sixty per cent. of its assets invested in mortgage loans, a large part of which had been made in the West. It was charged at that time that many of these loans had been made without regard for the safety of the company.[1] At any rate the company was forced to begin foreclosing mortgages upon a large scale in 1879, a process which continued until it became the possessor of thirteen million dollars worth of real estate obtained through foreclosure. It had five millions in Chicago, three millions in St. Louis, and nearly two millions in Detroit.

The Union Mutual which had loaned a large percentage of its assets in the West likewise was forced to foreclose a large percentage of its mortgage loans. In 1875, it had five and one-half million dollars worth of mortgage loans, in 1880 it had only one and one-half million dollars worth. At the close of the latter year it owned one and one half million dollars worth of real estate in Illinois alone.

The table of totals shows that mortgage loans in 1880 formed but thirty-eight per cent of the total assets, whereas in 1860 they had formed fifty-nine per cent. The cause for this change has been stated. It is the history of this period to which investors often point as illustrating the weakness of loans on real estate as an

[1] Insurance Monitor 1880, page 36.

asset. Some companies did fail because they had loaned rashly on real estate, but they were badly managed in other respects. The companies which survived had one lesson pointed out to them. The actual loss on the foreclosed property was not large to those companies which kept the real estate until the revival in business set in, but the loss to the companies in other ways from foreclosure was great. The depreciation in securities as good as United States bonds was greater probably than the depreciation in land values, but the companies owning marketable securities knew exactly what the value of such securities were and the public could find out. The companies which had obtained a large amount of real estate could only estimate its value, for much of it had scarcely a market price, and the public could not learn what the value was. Hence, there was a loss of prestige to certain companies, and the criticism which followed was extremely severe.

Foreclosure of mortgage loans ceased almost entirely after 1881. Later they began to absorb a larger proportion of the accumulated assets. Since then the total amount of such loans has increased steadily, but in comparison with the increase in total assets the mortgage loans have declined in importance. At the present time mortgage loans form barely more than one-fourth of the total assets. With individual companies the decline in percentage of such assets is still more striking. With

some companies in 1904 the percentage which loans on real estate formed of the total assets was under fifteen per cent.

The cause for the extreme relative decline which has taken place in mortgage loans since 1890 is hard to explain. There has been a decline in the earning rate of such loans, but it has not been enough to justify the change from mortgage loans as the greatest asset to a lower position among the assets. Mortgages run for short periods, and with a decline in the interest rate they are paid off. After 1890 the rate of interest declined sharply, and as a result most of the companies seem to have been animated with a desire to get the funds under their control invested in long time securities. Other causes for the change will develop in the study of the other investments.

Real estate absolutely owned by the insurance companies may be divided into two classes. One class consists of real estate obtained through foreclosure, the other of that purchased and improved by the companies for business purposes, namely for home offices. The first class has never composed a large part of the assets save at the close of the seventies through causes which have already been discussed. In 1880, as a result of the foreclosed mortgages, real estate formed more than twelve per cent. of the assets. Not a few companies had a fifth or more of their assets tied up in real estate.

Since 1880, there has been no period of general foreclosure of mortgages.

In the late sixties, several companies were erecting home office buildings. For advertising purposes, these buildings were made showy and expensive. From that time until the present practically every life insurance company, no matter how meager its assets, and how necessary it has been that those assets should be invested with the greatest care, has deemed it necessary for its success that it should erect an office building. Each new building must be larger and more costly than the preceding ones. Those companies which have had other weak elements in their management have been ruined by the heavy burden of a costly home office, and in a number of cases these magnificent buildings stand not as monuments of strength, but rather as tombstones to departed companies. Most of the companies which built the home offices were strong enough to afford the heavy expenses entailed in most cases by such buildings. Probably one hundred and twenty-five million dollars are invested today in home office structures or branch offices, which from the investment point of view is a failure. It is the money placed on such buildings that has kept real estate up to such a large proportion of the assets. This policy of erecting expensive offices is not common to all corporations. Several years ago the banks started to follow the example of the insurance

companies, but experience soon taught them that banking was one business and the handling of real estate another. Outside of the metropolitan newspaper offices, few corporations, other than insurance, have invested so heavily in offices when the real needs of the business required but little. It is necessary to state in this connection that two-thirds of the real estate owned by the twenty-nine largest companies is in the possession of five of them.

Collateral loans formed a small percentage of the total assets until 1880. By reference to the table, it will be seen that nearly six per cent. of the assets of that year were in the shape of temporary loans upon collateral security. However, this was not the result of any general action of the companies, for of the twenty-four million dollars of collateral loans in 1880, fifteen millions were held by two New York companies, and nineteen millions by four companies of that State.

The cause for such large loans on collateral by the New York companies was ascribed to the law limiting mortgage loans to New York, but since the repeal of that law, collateral loans have continued to form a considerable portion of the assets of some companies in that State. In 1890, the Manhattan reported forty per cent. of its assets as consisting of collateral loans. In 1900, two New York companies had thirty-seven million dollars so invested, or more than one-half of the

total of collateral loans held by all companies. However, some companies in other states have at the present time a larger proportion of their assets so invested than do most of the New York companies. Just why the companies should take up such loans which are properly the function of a commercial bank is difficult to understand. The rate of interest realized upon such loans is low, they require a great deal of attention which could well be directed in other channels, and there is no need of ready money calling for such investments on the part of the life insurance corporations.

United States bonds need but little discussion in a study of the assets. Only for a brief period did they form any considerable portion of the total assets. The insurance funds were not large during the Civil War period, but it is remarkable how suddenly the investments were changed from mortgage loans to United States bonds. With the disappearance of the premium on gold, the government bonds owned by the insurance companies decreased. The severe depression of the seventies so alarmed the companies that they purchased considerable amounts of such bonds, despite the fact that the government was refunding them at a lower rate of interest. At the close of 1880 the companies owned twice the amount of government bonds that they did in 1870. For reasons generally known, since 1880, United States bonds have been getting scarcer

and higher priced, and the insurance companies have disposed of such bonds until, at the present time, government bonds are scarcely more than a temporary investment for funds awaiting investment.

Under the title of foreign public bonds there has been included bonds of foreign governments, bonds of cities in foreign countries, and corporation bonds guaranteed by the government of the foreign countries. Such an item was not found among the assets of United States companies until about 1880. At the end of that year, the Travelers' owned something like forty-seven thousand dollars of Montreal bonds. By 1890, nine companies possessed some amount of foreign public bonds, and these included securities guaranteed by European governments. The appearance of these foreign bonds among the assets of United States companies does not indicate that they found it necessary to go abroad for remunerative investments. Some of the Canadian bonds probably have been purchased as an investment, but the most of these and practically all of those of other countries have been purchased as a result of the requirement of foreign governments that the reserves upon policies written in those countries shall be invested in securities of that country. Several companies began to do a large foreign business during the eighties. This business has increased until at present several companies have large holdings of

foreign public bonds. The Germania in 1900 had fifteen per cent. of its assets invested in foreign securities, the New York Life had ten per cent. The objection to such investments, aside from the fact that the European bonds usually bear a low rate of interest, lies in the further requirement by the foreign government that the securities be also deposited in those countries. The scattering of assets, not only of bonds, but of real estate, in various countries is a bad plan. To secure the best management of the assets, their control should be concentrated in the home office.

For a time in the history of the country state bonds existed in large amounts. This was during the period 1825 to 1840, when the states conceived and carried out to a considerable extent large systems of internal improvements. Then came the crisis of 1837, followed by state bankruptcy and repudiation of debts. Since 1840, twelve states have dishonored debts to a total amount of three hundred million dollars. From the same date state activity requiring large sums of capital has almost ceased. When in 1850-60, state bonds could have been purchased by the insurance companies, they were not desired; since that decade the bonds of states with a good record for paying have been too scarce to offer much outlet for investments.

As the states gave up internal improvements, the counties and cities increased their activities. Counties

made large bond issues to subsidize railroads, and municipalities did the same. This created large debts for these governments, and the insurance companies bought many bonds. In 1880 nearly one-seventh of the total assets were invested in such securities. Then like the states, the counties and cities began to repudiate their debts on a large scale. Over one hundred cities in Illinois [1] alone endeavored to avoid payment of their bonds, more than ninety in Missouri attempted the same policy, and in some states, there was almost unanimous action on the part of the municipalities in attempting to dishonor their obligations.

As a result, the insurance companies decreased absolutely their holdings of municipal securities from 1880 to 1890. Since then there has been an enormous increase in the debts of municipalities, but the security of such bonds has increased even more rapidly. This has caused these bonds to be sought by investors who are satisfied with a low rate of interest so long as the security is good, and given them a price in many cases prohibitive to insurance companies. Though the insurance companies possess more municipal securities than ever before, the percentage which they form of total assets has diminished.

So far, the great changes which have been noted in the character of the assets have been large relative de-

[1] Insurance Monitor, 1884, page 510.

creases in premium notes, in mortgage loans, and since 1880 a decrease in public securities. Corporation securities on the other hand have absorbed a rapidly increasing proportion of the assets. From less than one per cent. of twenty million dollars of assets in 1860 invested in corporation bonds, the percentage has grown in 1900 to thirty-two per cent. of nearly two billion dollars worth of assets. Of these corporation bonds, railroad securities form by far the largest amount. There were plenty of railroad securities in 1860, a great deal more in proportion to the insurance assets than at the present time.[1] However, only six companies had such an asset at all. In 1870, three more companies owned railroad bonds, but it was not until after 1880 that insurance companies began to invest large amounts in railroad bonds. During the early period railroad securities were not considered safe enough for insurance companies. Railroads had scarcely passed through the experimental period of their development when they fell into speculative control. Men obtained control of them simply to exploit them and wreck them for their own pecuniary gain. Thousands of dollars of savings invested in railroad securities were lost. During this period the insurance com-

[1] The report of the Secretary of the Treasury in 1857 gives the capital and indebtedness of the railroads for that year as $900,000,000.

panies avoided railroad bonds and stocks. Better days came to the railroads, their bonds became high-priced securities, and the life companies have purchased them until now they are the largest asset which they possess.

Within the last two decades bonds of gas, electric and water companies have been purchased to some extent. Gas company and water company bonds form the largest part of the twenty-nine millions so invested. There is a similar amount consisting of miscellaneous bonds of telephone and telegraph companies, and a very few bonds of manufacturing concerns.

The investment in corporation stock is one of the most interesting of the assets. This interest comes not from the proportion which such securities form of the total assets, but because of the results which follow from the ownership of stock. Railroad stock has increased slowly as an asset. The objections which applied to railroad bonds for many years, applied to the stock with still greater force. To-day many railroad stocks are better investments than numerous railroad bonds.

Of other stocks, those of banks are the only ones held to any considerable extent by insurance companies. In 1860, it was the New England companies which held practically all the bank stock then owned. Only one New York company, the New York Life, owned any at all. The relative amount decreased until 1880,

but in the last decade the holdings of bank stock have increased rapidly.

There are serious objections to stock ownership by life companies. The stockholders of a corporation are responsible for the management of that corporation. Every stockholder is part owner, thus, in buying stock, the insurance company becomes more than the trustee of funds, it must enter to some degree into the active work of control. If the amount of stock which is purchased be but a small part of the total capital stock of the corporation issuing it, the responsibility which the insurance company assumes is slight, and may be undertaken for the sake of the gain which may accrue from such ownership. However, when so much stock is owned of one corporation that to protect the interest of the policy-holders the insurance company's officials must become directors and even officials in other concerns, the result is disastrous to efficient management of the insurance company. To avoid this result several states have prohibited their companies from holding stock of other corporations.

There are other objections to stock investments. Under the present state laws, it is almost vitally necessary that the companies maintain assets equal at all times to the reserve value of their policies. The fluctuating character of stock values is well known. Therefore if an insurance company is to own such stock, it

is necessary for it to have a large surplus, and large surpluses are undesirable, because they lead to extravagances. If the states would change the laws regarding the valuation of the assets, stock might be purchased to a greater extent. The valuation legally adopted by most of the states takes the selling price on December thirty-first as the value of the assets. This has made stock holding dangerous as well as leading to other troubles. Massachusetts tried the plan of valuing the assets according to the interest value method. The value of each security was arrived at by capitalizing the income from that security on a four per cent. basis. The plan was not just and has been abandoned. Some average valuation method is needed. The period over which the average extends ought to be of five years or even more. This would equalize values and prevent that alternate shrinkage and expansion of the surplus of companies which is objectionable. In truth, it would enable the companies to get along with a small surplus, for by taking a five-year average valuation, the dangers due to sudden fluctuations would be avoided. Such a change in the law is to be hoped for, as it would make possible a smaller surplus; and if a company were ably and honestly managed, would enable it to invest in securities which bring in a higher interest return than those now owned.

This concludes the general survey of the assets. The

tendencies toward different classes of investments during certain periods have been pointed out, and the main reasons external to the companies indicated which explain these tendencies. Similar tables computed for the individual companies show that the changes have not been universally made. The personal element has entered largely in the character of the assets which a company purchases. Thus, such variations are found as eighty per cent. of assets in mortgages in one company, and ten per cent. in another. One company has forty-five per cent. of its assets in corporation bonds, another has none. To explain these differences one would need to consider the personnel of the individual management, for in general, the same opportunities are open at the present time to all the companies. Companies located in the same city vary widely. Neither is the variation due to size alone, for although the three largest companies show the same tendencies, the next two largest have assets composed mostly of different assets from the three largest. One company laid great stress on having mostly all its assets invested in mortgage loans, until a change in the management caused other securities to be preferred. These personal elements have not been discussed. The object of the chapter has been to point out the causes of the general movements.

In this connection it is interesting to see what are

the assets of companies located in other countries under different conditions as to industrial development and laws. The following table shows the character of Canadian companies' investments.

TABLE SHOWING THE ASSETS OF CANADIAN COMPANIES.

Kind of Assets.	1877	1882	1887	1892	1896	1901
Real Estate	4.6	4.9	3.8	7.9		
Mortgage Loans	22.9	26.9	38.8	43.3	37.3	28.8
Bonds and Stocks	51.1	44.1	29.6	24.1	26.8	40.9
Collateral Loans	1.0	3.5	8.8	8.6	7.2	5.9
Policy Loans and Premium Notes	9.5	8.5	8.0	8.7	10.5	9.7
Uninvested Assets	10.9	12.0	10.9	7.3		

At the present time the table shows that the Canadian companies have practically the same percentage of their assets invested in loans on real estate as have the United States companies. Bonds and stocks form a somewhat larger percentage, having increased rapidly during the last ten years as an opening for the investment of insurance funds. This sudden increase has not been due alone to the growing popularity of corporation bonds and stocks as investments, but has been largely the result of a change in the Canadian law regulating the investments of insurance companies which was passed soon after 1896. The Canadian legislators have not selected always the same classes of investments for

the companies under their control as have the States, but in general character, insurance legislation in Canada in regard to limiting the investment field has been modeled more or less after the legislation in this country.

The fact that Canada is so near to the United States and has been influenced so much by her close contact does not give the same interest to her companies' experience as is felt in the experience of the Australasian companies. Australia, far away from other influences, has followed English custom much more than has Canada. Especially is this true in the freedom of investment which she has allowed her companies. The following table shows how companies in that country have distributed their assets.

TABLE SHOWING DISTRIBUTION OF THE ASSETS OF AUSTRALASIAN COMPANIES.[1]

Class.	1885	1890	1895	1900	1902
Real Estate....................	9.7	10.5	11.4	10.6	9.6
Mortgages....................	56.0	55.9	48.5	47.5	48.0
Governm't and Municipal Bonds	13.3	7.9	9.7	15.9	19.3
Shares	1.1	.7	.7	.3	.3
Loans on Personal Security....	1.4	.7	.3	.2	.1
Policy Loans..................	11.6	16.3	20.2	18.2	17.1
Uninvested..................	6.9	7.0	9.2	7.3	5.6

[1] Taken from the Transactions of the Faculty of Actuaries, Volume 11, Part IV, page 120.

The most interesting fact about the investments of the Australasian companies is the extremely small proportion which corporation securities form of the total assets. The cause lies in the governmental ownership of railroads and of other undertakings in that country which in the United States are left to private enterprise. The result of this governmental activity is of interest to company managers in this country in view of the agitation at present for municipal ownership of public utilities and in some quarters for ownership of the railroads. Officials of insurance companies have at times raised a note of alarm against such a procedure in the belief that it would lessen too much their field of profitable investment. There is very little cause to worry on that score. If the cities undertake to own the public utilities, and the Federal and State governments the railroads, the investment field will not be narrowed. As in Australia, the investment securities will still exist as municipal, state and government bonds.

In other respects, the distribution of assets of the Austraslian companies are of interest. The companies there have succeeded in keeping practically half of their assets in mortgage loans, the proportion of these of the total decreasing but little in twenty years. Policy loans likewise have made up a percentage of the total assets higher than in any other country.

Turning now to the countries of Europe, it is found

that England, the first country in which systematic life insurance was developed, has in the main allowed her companies to invest their assets without legal restriction. This gives an importance to the statistics of English companies which they otherwise would not possess. Since 1872, the assets have been distributed among the various classes of investments as follows:

TABLE SHOWING DISTRIBUTION OF THE ASSETS OF ENGLISH COMPANIES.[1]

KIND OF ASSETS.	1872	1880	1885	1890	1895	1902
Mortgages	48.2	46.2	43.8	40.4	37.2	28.4
Loans on Rates and Rent Charges	10.5	4.6	4.7	4.6	4.7	4.8
Policy Loans	5.0	13.9	12.5	11.0	9.9	8.7
British Government Securities	7.7	3.4	2.8	2.9	2.2	2.4
Colonial Government Securities	5.0	4.0	6.2	6.6	7.5	6.5
Foreign Government Securities	1.2	2.7	2.3	1.8	2.0	3.5
Railway and other Debentures	9.8	7.9	7.3	9.7	12.8	17.6
Shares and Stocks	2.6	4.2	6.1	6.7	7.2	12.1
Land and House Property	4.4	3.4	5.5	6.2	6.8	8.0
Life Interests	1.6	1.8	1.9	1.8	2.1	2.7
Loans on Personal Security	1.7	1.2	.8	.6	.7	.5
Cash, etc	2.9	6.7	6.1	7.6	6.9	4.8

[1] This table has been compiled from tables given by Mr. A. G. McKenzie, Journal of the Institute of Actuaries, Volume 29, page 193, and from the Transactions of the Faculty of Actuaries, Volume 2, Part V, page 110.

The table shows that the English companies have since 1870 invested approximately the same percentage of their assets in mortgage loans as have the companies in this country. If only the cash assets of companies in both countries were considered, it would be seen that the falling off in relative amounts of mortgage loans would be the greatest in the United States. That this should be true is remarkable. Since 1870, England has suffered a decline in agricultural land values amounting to millions of dollars, thus narrowing the field for mortgage loans. In the United States, on the other hand, land values of all kinds have risen greatly, giving a field for mortgage loans much broader than in 1870. That our companies have not loaned a larger proportion of their assets on real estate can only be explained by a lack of desire on the part of their managers for such investments.

The experience of the English companies with policy loans shows that such assets will not probably increase much more in the United States. English companies have been making such loans since 1850, and though they increased rapidly, both relatively and absolutely, until 1880, since then the percentage which such loans form of the total assets has declined.

The relatively large amount of cash held by English companies is due to no small extent to the fact that the companies have been able to secure a higher rate of in-

terest by placing deposits in colonial or foreign banks than they could by investing it in the securities on the market at home.

In general, English companies have had their assets more scattered than have companies of the United States. A low rate of interest at home has induced foreign and colonial investments until now nearly one-fifth of the assets are invested outside of the United Kingdom.

On the continent of Europe, life insurance has only developed in two countries to any considerable extent. These are Germany and France. The appended table shows the distribution of the assets of German companies.

TABLE SHOWING DISTRIBUTION OF THE ASSETS OF GERMAN COMPANIES.[1]

KIND OF ASSETS.	1876	1889	1903
Mortgages	60.4	71.3	79.5
Real Estate	2.1	2.8	2.0
Bonds and Stocks	5.0	4.8	2.7
Collateral Loans	3.2	.3	.0
Policy Loans	3.3	5.1	6.1
Cash	.9	.8	1.9
Other Credits	25.1	14.9	7.8

[1] The statistics for 1876 are taken from the Spectator, 1879, Volume 22, page 164. Those for 1889 from the Spectator, 1890, Volume 45, page 4. For 1903 from the Jahrbuch für das Versicherungswesen in Deutsches Reiche, 1905, pages 7 and 8.

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The proportion which mortgages form of the total assets of the German companies shows what can be done in that investment field. With sixty per cent. of their accumulations invested in loans on real estate as security in 1876, in 1903 they had increased the percentage to nearly four-fifths of the total assets. There is one large company in the United States which is popularly spoken of in insurance circles as having all its funds invested in mortgage loans, yet this individual company does not have as large a proportion of its assets so invested as do all the German companies averaged together. In other respects, the German statistics are worthy of careful consideration. Of objectionable assets, such as real estate absolutely owned, collateral loans and cash, the German companies possess minimum amounts.

The other continental country in which there has been some considerable development of life insurance is France. If England is known as the country where the state has adopted a *laissez faire* policy towards the insurance companies, France should be known as the country in which the opposite policy has predominated. In no other country have the life insurance companies been so restricted in the matter of their investments as in France. This gives to the following table an unusual interest.

TABLE SHOWING DISTRIBUTION OF ASSETS OF FRENCH COMPANIES.[1]

KIND OF ASSETS.	1878	1884	1898
Heritable Property	17.2	26.9	25.3
French Government Securities	31.3	18.0	13.4
French Securities Guaranteed	22.2	39.4	29.8
Foreign Stocks and Bonds	.0	1.6	10.8
Policy Loans	1.5	2.5	3.3
Mortgage Loans	.1	2.8	6.4
Cash	.1	.9	.3
Other Assets	27.5	8.8	10.6

French companies have a large proportion of their assets in real estate and small amounts in real estate loans. For a number of years the French laws prohibited the life insurance companies from loaning on real estate. Likewise, the government narrowly limited the investment field in other directions. Restricted in the investment field to low-earning securities, the French companies found it necessary to turn their attention to an asset which has been a drug for the life insurance companies in nearly all parts of the world, and especially in the United States, namely, real estate absolutely owned by them. The results in earning power show the difference between an investment in real estate for the sake of the earnings and an investment made for advertising purposes. American and French

[1] The statistics for 1878 are from the Insurance Spectator, 1879, Volume 22, page 565. For 1884 and 1898 from the Transactions of the Actuarial Society of Edinburgh, Volume 4, page 508.

companies have both invested in Paris real estate, the American investment has shown little or no net return, but the French companies have had a favorable experience with their real estate possessions. The restrictions against mortgage loans have now been removed, and mortgage loans are beginning to form a considerable proportion of the assets of the French companies. The other regulations concerning the investments have also been broadened, allowing freer scope to the company managers, so that the character of the French assets is changing rapidly.

Having completed our study of the character of the assets what conclusions are to be drawn? Very few so far as the results of this chapter indicate, for the value of an asset depends not only upon the safety of the principal, but also upon the rate of interest, and this latter we have not yet determined.

Anticipating somewhat, we can conclude with much certainty that some companies do not have as large a proportion of their assets invested in mortgage loans as they should. These loans do not possess all the merits sometimes ascribed to them, but they do possess certain characteristics which make them a good investment for a considerable portion of the funds. Of all the assets having a value little subject to fluctuations, mortgage loans are unexcelled. The net rate of interest will be found to be equal to that of other securities, in

most instances greater. However, it is not urged that even for the sake of the higher return which can be secured from such loans that mortgages should form anything like nearly all the invested assets. We have seen that companies with too much of their assets in mortgages suffered severely during periods of extreme depression. With large assets, it would be a heavy burden upon an investment department to loan and supervise so large a proportion as was once loaned on real estate, and mortgages not carefully supervised are risky investments, but the investment department should not be relieved too much. As yet, the labor expended in pursuing a policy of real estate loaning has been well repaid.

That it is possible to invest large assets in mortgages is shown by the experiences of the German companies. Even English companies with rural land values gone to pieces have a larger proportion of their assets invested in mortgages than do the companies in the United States.[1]

Under present conditions, the amount which securities dealt in on the exchanges form of the total assets must at least be regulated by the surplus of the companies. The depression in values in 1891 and 1892 and

[1] For a discussion of the possibilities of mortgage loans see Dawson's "The Business of Life Insurance," Chapters XXVII and XXVIII.

again in 1903 is sufficient to show that with the methods now in vogue of valuing such securities, they must not form a large proportion of the assets unless the companies possess a considerable surplus. The limitations on other assets, such as cash, real estate, collateral loans, have been already discussed.

Having seen of what the assets of life insurance companies consist and how these assets have changed in character from decade to decade, our next step will be to find out what has been the earning power of these various investments. A study of this will be made in the following chapter.

CHAPTER III.

INVESTMENT EARNINGS.

THE rate of interest is one of the most vital problems in the insurance world. When life insurance was first introduced in the United States term policies were the kind mostly written. With these the rate of interest is not an important factor. Then came life payment policies, and the cost of such policies is affected materially by the rate of interest. Finally with the advent of endowment policies, and with the development of modified forms of endowments, such as bond policies, and others involving a large element of investment, the rate of interest is one of the most important factors determining the cost of such policies. Because of the popularity of such policies and because of the great growth of the assets to be invested at some rate of interest, what that rate is, is of much significance to the insurance world.

Before level premium policies can be written some rate of interest must be assumed at which that portion of the premium which is reserved will accumulate. Before the establishment of state insurance departments,

and even after, the companies were allowed to assume any rate of interest in computing their premiums. When the state departments were organized for the purpose of supervising the companies, some test of solvency had to be decided upon. To know the assets meant nothing unless the liabilities were also determined. To determine the liabilities, a rate of interest must be assumed, and of the New York companies incorporated under the general law of 1849 none, except the Globe, had restricted itself in any way as to a standard of interest. Most of the companies had themselves assumed a conservative rate, but certain managers, sanguine of the future, had based their premiums on the assumption that the assets would earn six per cent.

Massachusetts under the leadership of her brilliant commissioner, Elizur Wright, in 1857, enacted that four per cent. should be used as a basis for computing the liabilities of a company. Georgia two years later made the same rate the legal standard for companies doing business in that State.[1] Until after the Civil War these were the only States which had adopted a legal basis for finding the liabilities of the life companies.

However, the rate specified by the Massachusetts law was becoming the one generally adopted by the companies of other states, otherwise they could not trans-

[1] Act of December 12, 1859, Section 4.

act business in Massachusetts. In 1862 there were seventeen American companies writing insurance in New York. Of these, eleven assumed that their assets would earn four per cent., three a rate of five per cent., and one six per cent., and one did not state in its annual report what rate it did assume.[1] The Civil War brought a higher rate of interest, and new companies were formed whose managements chose the higher rates. The confusion in standards adopted by the various companies led New York to enact a law providing for a legal rate. A five per cent. standard was adopted in 1866.[2] Two years later, in the hope of securing uniformity of standards, New York lowered the legal rate to four and one-half per cent. with the expectation that Massachusetts would raise her standard rate to that per cent.,[3] but Massachusetts maintained the four per cent. basis.

The troubles which began to disturb the insurance world during the late sixties brought a number of laws providing for legal standard rates of interest. Wisconsin in 1870 established a four and one-half per cent. basis.[4] Other states enacted similar laws. Thus in 1873, Massachusetts, Maine, Connecticut, New Hampshire, and Illinois had the four per cent. standard rate,

[1] New York Insurance Report, 1863, Page 643.
[2] Act of April 24, 1866.
[3] Insurance Times, August 1869.
[4] Act of March 14. 1870, Section 10.

while fifteen others had a four and one-half per cent. basis,[1] and Texas and Pennsylvania allowed stock life insurance companies the liberal rate of six per cent. in calculating their liabilities.

These legal standard rates of interest are important, because they show what was then thought to be the rate of interest which could be expected for half a century in advance. As is evident, the discussion at that time was entirely as to whether a four and one-half per cent. standard should be adopted or a four per cent. standard. There was a movement during the hard times of the seventies on the part of a number of states to a four per cent. basis, but there were few who believed that any lower standard rate than four would be needed for years to come. The insurance world was not a little startled when, in 1882, the Connecticut Mutual announced that its new business would be done on a three per cent. basis. In the same year, the Massachusetts Commissioner of Insurance likewise raised the question of a lower interest basis. New York still had the four and one-half per cent. standard, but the lower actual earnings led to the adoption of a four per cent. standard in 1884.

There was not a great deal more heard of a lower interest basis until after 1890. The companies with the exception of the Connecticut Mutual were on a four

[1] Connecticut Insurance Report, 1874, Page XLII.

per cent. basis, and a number of states still allowed the five per cent. standard. In 1892, the United States Life voluntarily went on a three per cent. basis for new business. Soon after the feeling that some reduction in the assumed rate was necessary became widespread.[1] The insurance commissioners in their annual convention of 1893 urged the general adoption of a three per cent. standard, and in 1894, the legislatures of two states considered the advisability of such a rate. In 1896, three companies adopted three per cent. for new business, and the discussion was no longer whether the four per cent. rate should be lowered, but whether it should be lowered to three and one-half, or to three per cent.

The companies began changing the rate rapidly. With the larger and older companies the three per cent. standard was usually adopted. Massachusetts was the first state to go below four per cent., adopting a three and one-half per cent. basis in 1899.

Connecticut and New York have since enacted similar laws. In general the other states are on a four per cent. basis. In 1903, eight states still retained the four and one-half per cent. standard, but changes are being made to lower rates.

The legal basis was fixed at a conservative rate forty years ago when the states first began establishing a test for solvency. The rate selected was far under the

[1] Laws of 1884, Chapter 341.

actual rate earned by the assets. Yet, despite the conservative rate adopted, the states have had to twice change the rate to a lower one, and the companies likewise are assuming a rate averaging fully one and one-half per cent. lower than in the sixties. It is unnecessary to state that these changes in the assumed rate have been due to a serious decline in the rate of interest actually earned by the companies.

If we study the rate of interest in the United States from the period of the Civil War, we shall find that there has been one tendency through the whole period, the movement toward lower rates. Much discussion in insurance circles has been based on the showing of this period. The conclusion has been that the tendency of interest is to decline, and investments, especially during the past fifteen years, have been made on the assumption that the rate of interest for a long time was to continue to decline. It is a mistake to base conclusions on a study of the period since the Civil War and of this period alone. Valid conclusions must be based on a wider study.

There is a belief widely prevalent that the rate of interest has been high throughout the history of the United States until recent years, and that there has been a gradual decline to what is known as the present low rate. This is not exactly true. It is a fact that in general the rate of interest in the United States has

been higher than in Europe, especially in England, but, relatively speaking, the rate was not steadily high during the early history of the country, nor has there been a gradual decline. The real situation is that the rate has been a fluctuating one. During colonial times six per cent was altogether a common rate of interest. Before the Revolutionary War loans could be secured on desirable mortgages in New York State at five per cent., which cannot be considered as a high rate on mortgage loans, for many borrowers are paying more even now.

Passing over several decades after the Revolutionary War, because statistics of the rate of interest are not available, we find that during the thirties the rate of interest fluctuated rapidly. In 1836 an extremely high point was touched. During the severe depression following the crisis of 1837-9 the rate went as low as four per cent. on many loans, the ordinary rate fluctuating around six per cent. From 1840 to 1860 the best state and government bonds sold on a five per cent. basis. It was a period during which the country was expanding rapidly, much new land was being settled, and the rate of interest on mortgage loans was higher than on the best state bonds, and there were great divergencies in various portions of the country. However, enough has been given to show that before 1860 the rate was not steadily high, that a rate of five per

cent. was not uncommon and even four per cent. interest was known.

Unfortunately we do not possess the statistics of a mass of assets such as are represented by the life companies' investments before 1850. There are savings banks statistics, and these are valuable, though representing a more restricted character of securities than the insurance companies have purchased. A deposit made with the Salem Savings Bank in 1823 accumulated until 1871 at the rate of five and nine-tenths per cent. above all cost.[1] The Society of Savings of Hartford accumulated a deposit from 1825 to 1871 at the rate of five and six-tenths per cent. The Savings Bank of Newport received a deposit of thirty dollars in 1827, and accumulated it at the rate of five and three-tenths per cent. above all charges. These statistics show that for such investments as the savings banks were allowed to make, the rate of interest for fifty years was probably under six per cent.

From 1850 to 1860, the statistics of the income and assets of a number of life insurance companies are available. In the following table, the companies and the rates realized by them during certain years are given.[2]

[1] The Insurance Monitor, 1882, Page 239.

[2] This table is compiled from statistics given in William Barnes' condensed edition of the New York Insurance Reports for the years after the general incorporation act was passed in

	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859
Connecticut Mutual..	....	....	....	....	....	6.5	6.6	5.3	6.5	6.4
Manhattan	....	5.6	3.2	2.4	5.7	6.6	6.8	6.6	6.3	6.0
Mutual Benefit	5.1	5.3	5.5	5.6	5.7	5.7	5.8	5.8	5.9	6.0
Mutual Life.........	....	....	....	....	5.0	4.8	6.6	6.9	6.4	6.2
New England.........	6.0	5.3	6.3	5.9	6.0	5.5	5.4	5.7	5.5	5.8
New York Life.......	....	....	....	7.2	7.1	3.8	5.4	7.2	3.6	5.4
United States........	....	4.1	9.3	4.5	5.8	6.0	5.8	5.8	3.6	5.9

For these seven companies, the table gives fifty-six annual rates of interest. Of these fifty-six annual rates, thirty-four are below six per cent., five rates are exactly six per cent. and only seventeen are above six per cent. Nine rates are as low as five per cent. or lower, and only four are above seven per cent. These statistics are of a period when the companies were small, but they show in a general way that the rate of interest for the decade 1850–60 was below six per cent.

Since 1860 the data for finding the rate of earnings secured by the life companies on their investments is more abundant. We have already noticed that the New York Department of Insurance began to issue reports in 1860. As well as giving the assets, these reports have given in some detail the income produced by certain large classes of the assets. From these reports, and from those of other states when the New York reports did not contain the information, a number of

1849 till 1859 when the insurance department was established and began issuing annual reports.

tables have been compiled to show the investment earnings of twenty-nine companies. These twenty-nine were chosen because they were the ones which had over five million dollars of assets on December 31, 1903.[1] In these tables the asset history has been given from 1860 whenever possible. In the case of some companies they did not exist at that time, others were not doing business in a state which published annual reports. In all cases, the tables go back as far as possible.

As the method adopted in finding the rate of investment earnings in these tables has never been used in the numerous tables of the rate of interest earned by life insurance companies which have been published, an extended explanation will be given of it. In taking the amount of assets to use as a basis for computing the annual rate of earnings, mean market value has been chosen. The mean for the year is taken because the companies report the amount of assets on hand at the end of the year. This is not the same amount which they had twelve months earlier. In almost all cases there has been a considerable increase, and this increase has been bearing interest only a part of the year. Hence to be right the mean amount must be used as a basis.

[1] The Mutual Reserve had five million dollars of assets at this time, but as it had been recently changed from an assessment to a level premium company, it is not included. Since 1903, one other company has passed the five million mark in assets.

But taking a mean involves some choice of several values of the assets. There is no general agreement as to the value of assets. There is cost value, book value, and market value. Which one should be used? Cost value may be immediately rejected, for with it no rate of any real significance can be secured. Suppose that a hundred dollar bond payable in twenty years and bearing interest at five per cent. is purchased at a cost of one hundred and twenty-five dollars. Now by taking cost value of this bond, the rate of earning power for nineteen years would be four per cent., and for the twentieth year there would be an outgo of twenty-one dollars due to the paying off of the bond at face value, while the cost was twenty-five dollars more. The real annual earning power then of the bond was not four but three and twenty-nine hundredths per cent. Now as few bonds are actually purchased at face value, and since taking cost value as a basis does not take into consideration the loss or gain due to the difference between the face value and the actual cost of the bond it can be immediately rejected.

Neither can book value be used. Book value is the result of an actuarial computation showing the value a bond possesses each year if a steady income is to be received from it from the time of purchase till maturity. The rate of income found on such a basis simply shows what the company expected to receive when it purchased

the bond, and book values of the assets would give us a rate which would be a rate compounded of the rates which were expected forty years ago, thirty-nine years ago, thirty-eight years ago, etc., until the present. It can be readily seen that such a rate would not mean anything. Besides there are two large classes of assets which have no book value in the same sense as book value is used of bonds. These classes are stocks and real estate. Thus book value is unavailable in finding what has been the actual rate of investment earnings from year to year.

Market value of the assets remains, and it is this value which has been used as the basis for computing the rate of investment earnings. By using it as a basis, the actual rate of each year can be obtained. This is true, however, only as we include other items in our income account than mere interest receipts. These items are items of investment fluctuation. To show this, let us take a concrete example. Suppose a company this year buys a five per cent. bond at par. The cost and book value of that bond would remain at 100. Suppose a year hence the market value of that bond is 125, what is the rate of earning power of that bond? The company could sell that bond for twenty-five plus five dollars accrued interest more than it gave. Thus the earning power of that bond during the year would have actually been thirty per cent.

If it be objected to this plan that companies do not sell their assets, but keep them to maturity, it may be replied that stocks and real estate do not have any period of maturity. Furthermore, companies do sell their securities and reap the benefits from an increase in market value over book or cost value. But if they did not, and if they did not own any stocks or real estate, the validity of the method used would not be touched. The purpose of the method is to discover what the actual earning rate of the assets has been for each year. If a company has bought poor bonds and these bonds have depreciated in value, it is universally recognized that this depreciation should be taken account of in the earning rate. Vice versa, if the management has been far-sighted, or fortunate enough to secure appreciating securities, the appreciation should be considered as an earning and ascribed to the year in which it occurred.

In the following tables the investment fluctuation has been found through a set of separate tables. One side of these tables contained the positive items of fluctuation, namely, gain in market value, gain from sale or maturity of the assets, and gain from profit and loss. The negative elements are composed of loss in market value, loss from sale or maturity, loss from adjustment of book value, and loss from profit and loss. The positive items have been added together and the negative items added. If the positive items or the gain exceeded

the negative items or the losses, the difference has been added to the interest receipts for the year. If the negative items were in excess, the difference has been subtracted from the interest receipts to get the total earning power. These items of investment fluctuation have been found in the following manner. Market value over book value of the assets is reported each year. By taking the market value over book value at the beginning of the year, and at the end of the year, the gain or decrease can be found for each year.

Likewise a company which has bonds with a market value above book value may sell the bonds and realize a gain from the sale, or it may sell the bonds at a value less than book value, in which case it would realize a loss. Few dispute the correctness of the plan of counting in such gains or losses as these in finding the earning rate of the assets. In the same manner the company may realize a gain or a loss from the maturity of the assets. If a bond is carried at a book value below par, and, maturing, is paid at par, the company realizes a gain. If carried above par, the maturing of the loan causes a loss. In this way is explained the gain and loss from the sale or maturity of the assets.

A gain or a loss from adjustment of book value must be considered. We have said that market value above book value was included in the earnings. Now if the change in the book value were not considered, a com-

pany could by changing their book values make market values anything they might choose. By decreasing the book value the excess of market value is increased. Therefore in finding the real investment earnings this change in book value is taken into the account. It is possible to have a gain from the adjustment of book value, but this has happened so infrequently that it has been included under gain from increase in market values.

The profit and loss amounts have been the hardest to handle. It is perfectly evident that such amounts could arise from the insurance side of the business, and in many cases it is impossible from the report to discover whether they should be considered in the investment account or not. When discovered as arising from the insurance side they have not been included in the investment fluctuations. Much care has been exercised in regard to this item, but doubtless mistakes have been made, for often profit and loss has been reported without any indication as to where it arose.

This brings us to consideration of the amount entitled "interest earned but not received." Interest earned but not received for any year is the difference between the accrued interest at the beginning of the year, and the amount accrued at the end of the year. The difference may be positive or negative. This item must be considered if the real earning rate is to be found, as a

glance at the amounts of such accrued interest will show. Interest receipts need no explanation. The amounts under this heading are the actual amounts received as interest and rents during the year, no matter where it was earned. The total earning power is simply the algebraic sum of the amounts in the three preceding columns.

The tables simply give the rate of earning power. The term, "rate of earning power," has been used to distinguish the rate here found from those which are commonly called rates of interest. In getting this rate the formula

$$X=\frac{e}{\frac{a+a'}{2}-\frac{e}{2}}$$

has been used when X is the rate sought, e is the investment earnings, a is the assets at the beginning of the year, and a' is the assets at the end of the year. $\frac{a+a'}{2}$ corresponds to the amount entitled mean market value.

The reason for subtracting half of the interest earnings from the mean assets is as follows. Let us assume that the interest is paid annually, and that the interest payments are evenly distributed throughout the year. It is evident that under these assumptions the value of the assets, which value includes accrued interest, is greater than the value of the assets bearing interest.

Take any point of time during the year. Some of the securities have just received their interest payments, others are about to receive theirs, while others are midway between the two periods. Take a bond for instance bearing four per cent. interest, payable July 1. On July 2 the value of the bond is 100. During the year its value slowly rises until by the end of next June its value is 104. The mean value during the year is 102. This value could be taken as the basis of computing the interest rate and a rate found. By general agreement, however, the principal at the beginning of the year is taken as the basis for finding the rate of income. Therefore, from the mean value must be taken one-half the earnings to find the basis for computing the rate of earnings for the year.

This formula has long been known,[1] but it has never been used in obtaining the rates of interest which have been published as the rates earned by insurance assets. This formula and the manner of finding the earning power of the assets have, we believe, never been used until the following tables were constructed. In order that the method may be fully understood, a typical example will be given.

[1] Emory McClintock gives an extended explanation of this formula in The Insurance Times for January, 1875. See also W. D. Whiting, The Insurance Spectator, Volume 47, Page 248, and Walter C. Wright, The Insurance Spectator, Volume 46, Page 215.

REPORT OF A LIFE INSURANCE COMPANY.

Market value of Assets December 31, 1903	$52,416,000		
Market value of Assets December 31, 1904	56,228,000		
Mean market value for year 1904..........			$ 54,322,000
Market value over book value,			
December 31, 1903.........	$ 315,000		
" 31, 1904....	585,000		
Increase in market value.............		$ 270,000	
Profits from sale of bonds		221,000	
Profit and loss.....		5,000	
Total investment gain....			$ 496,000
Loss from sale of real estate..........		$ 46,000	
Loss from adjustment of book value..		92,000	
Total investment losses...............			$ 138,000
Investment fluctuation, 1904..........			+ 358,000
Accrued interest,			
December 31, 1903.........	$ 380,000		
31, 1904.........	280,000		
Accrued interest 1904			— $ 100,000
Interest receipts 1904			2,456,000

$358,000 + $2,456,000 — $100,000 = $2,714,000 total investment earnings.

$$\text{Rate of earnings} = \frac{2,714,000}{54,322,000 - 1,357,000} = 5.1 \text{ per cent.}$$

In computing the rates found in the following tables, no account has been taken of the investment expenses neither on total assets nor in the rate on separate classes of investments. When the investment expenses are considered, it will be found that they in many cases

materially reduce the gross rates which have here been calculated. However, because of the difficulty connected in computing such costs of investing it has been thought best to deal with them in a separate chapter.

The first tables given are those showing the rate of earnings on total assets.

EARNING RATE OF TOTAL ASSETS.

Year.	Aetna.	Berkshire.	Connecticut Mutual.	Equitable.	Germania.	Home.	John Hancock.	Manhattan.	Massa-chusetts Mutual.	Metro-politan.
1860	.....	4.5	6.9	—0.7	......	......	......	5.4	2.1	.....
1861	.....	2.4	7.2	—1.1	—2.1	7.5	......	5.8	3.5	.....
1862	.....	5.7	7.0	9.2	13.8	7.9	......	9.0	4.1	.....
1863	.....	5.4	12.0	7.8	8.3	8.9	2.0	6.5	7.6	.....
1864	6.7	10.1	11.9	6.7	5.7	11.2	20.0	8.0	5.1	.....
1865	6.7	5.2	4.9	6.4	4.6	6.2	11.1	5.3	3.3	.....
1866	2.9	8.7	8.0	6.3	6.6	9.5	8.4	8.0	9.4	.....
1867	7.4	6.9	6.6	5.6	6.2	6.8	9.5	7.1	6.0	.....
1868	7.4	6.2	7.0	6.6	8.8	6.4	9.2	6.7	6.8	.....
1869	8.8	5.6	7.3	6.1	7.6	6.8	9.0	7.1	7.8	7.5
1870	6.3	7.4	5.5	6.1	6.0	5.5	3.2	6.0	5.6	2.1
1871	7.4	3.6	7.0	6.1	6.5	6.6	3.2	6.5	7.1	4.2
1872	8.5	6.6	6.3	6.2	6.2	6.6	6.0	6.8	6.6	6.3
1873	7.9	6.8	6.8	6.6	6.5	6.3	5.3	6.5	6.1	5.0
1874	7.4	7.5	7.3	7.0	7.0	6.7	7.2	7.0	6.8	6.2
1875	7.7	4.7	8.1	5.8	6.2	6.7	6.7	6.8	6.9	5.3
1876	7.6	6.2	7.1	5.7	6.0	6.4	6.6	5.8	6.4	5.4
1877	6.8	3.3	6.8	4.6	4.2	6.6	6.4	6.0	—0.1	5.8
1878	7.0	5.3	5.7	4.9	4.2	5.7	6.4	4.1	4.8	6.7
1879	6.7	5.6	6.3	5.8	5.4	5.7	6.3	6.1	7.3	8.1
1880	6.5	5.7	6.3	8.1	6.2	6.2	6.4	6.9	7.8	7.5
1881	6.2	6.0	5.9	5.6	4.1	4.8	5.4	6.0	5.9	6.1
1882	5.8	6.4	5.5	5.4	5.4	4.9	5.1	6.1	5.7	7.2
1883	5.9	5.7	5.8	5.5	5.5	7.0	5.8	6.5	5.6	3.1
1884	5.5	4.5	5.1	4.9	5.1	5.5	5.5	5.0	—0.4	3.8
1885	5.9	5.0	6.3	8.0	6.3	4.9	6.8	5.1	2.8	5.1
1886	5.4	5.7	5.9	6.4	5.4	5.8	6.1	5.4	5.8	4.3
1887	5.3	4.7	5.3	4.9	5.3	4.6	5.6	5.0	6.0	4.9
1888	5.5	4.7	4.9	4.9	5.0	4.6	5.4	4.9	4.9	4.8
1889	5.4	4.8	5.0	5.2	5.0	4.6	4.5	4.2	4.9	5.8
1890	5.1	4.9	6.4	3.5	4.2	6.2	4.6	5.3	4.6	5.4
1891	5.2	5.1	5.9	6.1	5.8	5.2	4.9	6.2	5.3	5.6
1892	5.3	4.8	5.9	4.7	5.0	6.3	5.0	5.0	5.1	5.7
1893	5.1	5.1	4.8	2.3	3.9	4.1	6.1	4.6	4.0	4.4
1894	5.3	4.8	5.8	3.6	5.2	2.7	5.3	5.9	5.6	5.7
1895	5.2	5.1	5.4	4.6	5.0	3.5	5.3	6.2	4.5	4.2
1896	5.3	5.0	5.1	4.1	4.9	2.1	3.8	5.0	4.2	4.3
1897	5.7	5.0	5.5	5.1	5.5	4.9	5.7	6.0	4.1	4.7
1898	5.5	5.0	5.3	6.1	5.1	5.3	6.1	5.2	5.9	5.5
1899	5.1	4.8	4.6	5.1	4.6	4.8	4.8	4.7	4.5	5.3
1900	4.9	4.7	5.3	3.2	4.9	5.2	5.1	5.8	5.0	5.0
1901	5.1	5.3	4.6	4.8	5.2	5.3	4.8	5.8	4.5	5.6
1902	4.7	4.9	3.8	4.3	6.6	5.0	4.4	5.1	3.9	3.7
1903	3.9	3.9	3.2	3.2	4.5	2.8	4.1	4.9	3.4	2.5
1904	5.1	5.3	5.5	5.3	4.7	6.3	5.3	5.8	5.4	6.5

EARNING RATE OF TOTAL ASSETS.

Year.	Michigan Mutual.	Mutual Life.	Mutual Benefit.	National.	New England.	New York.	North-western.	Pacific.	Penn.	Phoenix.
1860	....	6.8	6.1	5.6	5.6	5.0	......	.....	.....	5.0
1861	....	5.7	5.8	2.9	4.9	4.6	......	.....	......	3.7
1862	.....	7.7	6.5	8.6	3.4	8.2	5.1	. . .	......	6.3
1863	.....	9.7	7.5	7.8	7.1	7.2	7.0	.....	......	5.7
1864	.....	10.7	7.1	9.2	4.6	8.7	8.1	.....	......	11.6
1865	.....	3.6	5.6	4.7	3.9	5.4	8.6	.....	......	6.8
1866	.....	8.0	7.0	9.1	9.6	5.6	6.7	....	......	8.6
1867	.....	7.5	6.6	7.6	5.2	8.0	4.6	.....	......	8.9
1868	.....	3.4	6.7	8.6	4.7	8.0	5.5	.....	... ..	6.7
1869	.....	7.1	6.8	9.7	8.2	6.3	6.4	9.7	3.6	7.5
1870	....	6.0	6.3	6.3	4.2	4.4	8.1	7.0	6.2	5.9
1871	7.1	6.2	6.8	8.2	7.4	7.2	7.8	10.5	5.8	7.0
1872	7.0	6.8	6.2	6.6	5.8	6.8	7.9	10.2	6.3	6.6
1873	7.6	6.7	6.9	8.5	5.7	6.9	8.3	8.2	6.4	7.1
1874	7.0	6.8	6.7	6.9	7.0	6.3	8.4	10.2	6.0	7.8
1875	7.5	6.8	6.9	7.0	7.6	7.2	8.7	10.3	10.1	6.2
1876	7.0	5.6	7.9	6.4	5.7	5.8	7.8	8.1	6.1	7.3
1877	7.7	5.3	5.4	2.7	6.0	3.9	7.6	9.6	4.3	6.1
1878	7.8	6.8	6.0	4.4	7.4	4.9	6.8	9.3	6.4	5.3
1879	7.8	5.2	4.9	5.3	6.2	6.0	7.4	5.1	6.9	4.6
1880	7.5	6.6	4.4	6.1	3.0	8.4	5.7	5.7	7.3	6.9
1881	7.2	5.9	3.6	5.3	5.9	6.1	5.9	8.5	6.0	6.1
1882	6.3	5.4	4.2	5.4	4.9	5.4	5.8	5.7	5.7	6.6
1883	6.1	5.7	4.9	5.2	5.9	5.6	6.1	6.1	5.6	6.2
1884	6.7	4.5	4.1	6.0	5.5	3.9	5.5	6.2	4.4	5.8
1885	6.6	7.2	4.7	5.3	6.7	8.1	5.9	6.6	6.7	6.1
1886	5.4	5.3	5.3	3.9	5.3	5.7	5.6	6.2	6.7	6.0
1887	6.1	4.5	5.2	6.0	3.4	4.2	5.4	6.7	5.4	5.5
1888	5.9	6.0	5.2	8.4	5.4	5.5	5.9	7.5	5.6	5.8
1889	6.0	3.4	5.1	5.7	5.5	5.1	6.3	7.0	5.8	6.3
1890	6.0	5.4	5.0	4.9	3.4	3.4	5.8	5.9	6.7	5.1
1891	5.8	3.8	5.4	5.5	5.5	4.2	5.1	6.0	5.7	5.7
1892	5.4	6.1	5.4	5.8	5.2	5.5	5.7	6.2	5.6	5.9
1893	5.3	4.5	4.9	4.7	2.5	4.4	5.7	5.2	3.8	5.8
1894	5.2	6.9	5.4	5.1	6.2	4.3	5.4	5.0	4.6	5.5
1895	5.2	8.9	5.4	5.1	4.8	4.7	5.7	4.6	6.2	5.2
1896	5.3	1.7	4.1	4.5	4.4	4.5	5.3	5.0	5.9	4.9
1897	5.4	5.1	5.4	3.8	5.4	4.6	5.3	5.8	5.9	5.0
1898	5.3	6.3	5.3	4.0	5.5	4.8	5.6	5.7	5.8	6.7
1899	5.8	6.3	5.1	4.0	5.1	5.1	4.6	5.3	5.4	6.1
1900	5.4	5.1	5.2	4.4	4.7	4.9	5.0	5.0	5.5	6.3
1901	5.4	5.5	4.8	4.2	4.9	4.2	4.5	0.7	5.1	5.5
1902	5.1	4.5	3.9	4.7	4.2	4.3	4.0	6.0	4.5	5.0
1903	5.1	2.3	4.4	4.5	3.4	3.1	4.0	7.1	4.4	5.1
1904	5.1	6.7	5.1	4.6	5.1	4.2	5.7	5.0	5.6	5.2

EARNING RATE OF TOTAL ASSETS.

Year.	Provident Life and Trust.	Provident Savings.	Prudential.	State.	Travelers'.	Union Central.	Union Mutual.	United States.	Washington.
1860	....	......	......	6.3	......	......	......	6.7	......
1861	.....	......	......	7.1	......	......	......	5.9	7.0
1862	.....	......	......	5.8	......	......	......	5.3	8.8
1863	.....	......	......	5.6	......	......	......	8.6	9.3
1864	.....	......	......	8.1	......	......	6.1	11.2	14.8
1865	.....	... ,.	......	7.7	......	......	3.7	6.2	1.1
1866	9.7	......	......	7.8	......	......	5.6	10.7	7.2
1867	3.0	......	......	8.8	......	......	6.1	9.8	6.4
1868	4.5	... ..	......	7.0	......	3.5	5.5	5.2	8.6
1869	7.1	......	......	9.0	.....	5.3	7.1	5.3	6.0
1870	4.8	......	......	6.2	......	4.5	6.2	9.2	3.8
1871	2.6	......	......	17.1	13.0	4.7	6.6	6.8	6.1
1872	2.4	......	......	—1.1	7.8	6.7	7.4	5.8	5.5
1873	4.3	......	......	7.8	7.8	5.1	7.7	6.7	6.1
1874	5.1	......	......	8.6	7.7	7.4	8.2	7.2	7.0
1875	7.3	......	......	3.7	8.0	6.1	8.0	6.5	5.7
1876	3.6	1.5	......	5.5	8.3	7.1	—4.5	7.2	7.8
1877	3.4	0.8	......	5.0	3.3	6.7	6.4	6.1	5.2
1878	6.0	2.6	......	4.0	2.9	4.0	3.7	5.6	4.6
1879	5.7	2.3	......	6.8	4.6	7.8	4.6	5.6	5.7
1880	4.9	25.8	2.2	7.9	5.2	7.6	4.9	7.3	6.3
1881	4.8	4.6	2.4	6.9	5.7	6.9	4.0	5.3	5.8
1882	6.9	4.7	4.0	2.9	3.1	6.3	5.6	5.3	6.3
1883	4.8	0.7	5.3	4.5	5.1	7.4	3.2	5.5	4.9
1884	3.7	3.8	4.2	5.0	3.0	6.6	2.2	4.6	4.7
1885	5.7	4.2	4.8	6.4	4.2	5.7	3.8	8.3	5.5
1886	5.8	3.3	4.5	4.1	6.4	6.2	4.9	5.0	5.1
1887	4.4	3.1	4.2	4.9	4.3	6.0	3.7	3.6	5.0
1888	5.2	4.9	4.6	5.4	5.1	6.2	4.6	4.9	5.4
1889	4.8	4.6	5.0	4.6	4.1	6.0	4.4	5.1	4.8
1890	3.5	3.9	4.3	4.9	4.0	6.7	5.1	5.5	4.8
1891	5.1	2.8	5.1	5.2	5.3	6.2	4.9	5.1	4.8
1892	4.8	4.3	4.8	5.5	5.2	6.8	4.7	4.8	4.8
1893	2.9	1.3	5.2	4.1	2.3	6.9	2.4	3.6	4.3
1894	5.6	8.3	5.3	5.4	7.3	6.7	5.4	5.3	4.7
1895	4.9	3.0	4.8	4.9	4.9	7.0	4.9	4.9	4.3
1896	4.5	4.1	5.2	4.3	7.6	6.7	3.8	5.3	4.6
1897	5.9	6.7	5.7	4.6	5.4	6.6	5.2	5.3	4.4
1898	7.1	4.4	5.9	5.6	6.8	6.5	5.3	6.0	5.1
1899	5.0	6.6	4.5	5.3	5.5	6.5	5.3	5.2	7.5
1900	4.5	5.5	6.2	5.4	6.0	6.2	5.0	5.1	4.7
1901	3.3	10.7	3.0	5.2	5.4	6.4	5.2	4.6	5.0
1902	4.4	10.1	5.3	4.3	4.2	6.4	4.9	5.4	5.3
1903	2.3	8 1	3.3	4.0	3.5	6.5	2.8	4.7	5.9
1904	6.0	9.5	4.8	5.2	5.4	6.5	4.9	6.8	3.7

The figures tell their own story, but it may be well to summarize some of the leading facts contained in the tables. The companies started out with an average earning rate of about six per cent., the rate which we have already seen they were making during the decade just ended. Six made more than six per cent. in 1860, and seven made less. One of those making less actually had a negative rate, a phenomenon which is possible with the method which we have adopted of finding the rate of earning power. In this particular case the negative rate was due to a depreciation in the value of bonds which that company possessed.

There was a decrease in the earnings of 1861 compared with the preceding year. Eleven companies had a lower rate. With some of the companies the decrease continued through 1863. This decline in earnings was due to the effect of the war in depressing the price of the securities which the companies possessed. The year 1863 produced a rapid advance in the earning power of the assets. The investments were being turned in the direction of the high interest-bearing government bonds. In the following year, the highest earning rate was reached which most of the companies ever experienced. With large investments in government bonds, with the interest paid in gold, which was greatly appreciated in value, the rate made in paper money was high. The premium on gold formed a source of con-

siderable revenue to the companies for some time. Besides getting it as interest on the government bonds, policies had been written on a gold basis, and as the liability on such policies was a remote one the companies sold the gold, realizing a considerable gain.

The decade of the sixties as a whole shows rates which are the highest that the insurance companies have secured. Eleven of the annual rates found in the above tables exceed ten per cent.; seventeen are between nine and ten per cent.; twenty-four between eight and nine; thirty-three between seven and eight; and forty between six and seven per cent. Thus, one hundred and twenty-five annual earning rates out of one hundred and ninety possible cases were six per cent. or above.

The decade of the seventies is widely known as a period of extreme business depression. All values were severely tested. Those companies which did not have their assets in good shape felt the hard times keenly. Most of them failed. Those which lived through the crisis made a remarkable showing for the period in investment earnings. For all the companies from 1870–79, inclusive, there are only four instances in which the losses from investments were serious enough to produce a negative rate of interest for the year. But the earning rate decreased. In this decade only six times did the rate go above ten per cent. The Pacific Mutual in a part of the country not yet in close economic contact

with the rest of the country did not feel the effects of the depression, and during four years of the decade earned more than ten per cent. on its assets. Two other companies made more than ten per cent. for a single year, but as this was followed in each instance by a negative rate, it shows that real high earning power did not exist. The investments fluctuated in value rapidly during the decade. One year shows a gain in market values, the next a loss. In general the years 1870–71 show decreases, while 1878–89 show decided increases in the market value of the assets.

While about the same proportion of the annual rates from 1870–79 are above six per cent., as in the previous decade, a much smaller proportion are below seven per cent. The earning rate during the last part of the decade of the sixties averaged seven per cent., or more. The decade of the seventies does not show an average rate above six and one half per cent.

After 1880, the decline in the earning rate began in earnest. Before this in the seventies three companies had gone through the entire decade without a rate under six per cent., and two-thirds of the rates were above six per cent. In the eighties not a single company maintained a level of six per cent. unbroken, and there were three companies which never earned six per cent. during even a year. Between five and six per cent. became the prevailing rate. Two hundred and six out of the

two hundred and ninety rates are below six per cent. In the sixties, nearly one-half the rates had been above seven per cent. In this decade twenty years later not one-fifteenth of the annual earning rates were above seven per cent. This shows in a forceful manner how earnings were decreasing. One thing tended to keep the rate high. As the current market rate of interest fell, the long-time securities which the companies possessed appreciated in value, compensating the decline in the market rate of interest. The slight financial depression in 1884 set a new low record. Twenty-four of the twenty-nine companies lost that year from a decrease in market values, seven made less than four per cent. on their assets, twelve under four and one-half per cent., and twenty-four made under five and one-half per cent.

The rapid decline in the earning rate continued in the next decade. Ten per cent. earnings were a thing of the past, save in isolated cases. Six per cent., the rate which at one time had been considered as a minimum rate of interest, almost a certain one for all time, was not reached but thirty-six times during the decade of the nineties. Ten of these rates were made by a single company, leaving twenty-six rates of six per cent. to be made by twenty-eight companies in ten years. In fact, only two other companies maintained an earning rate of five per cent. throughout the entire decade. One

hundred and seven rates out of two hundred and ninety were below five per cent. In general, the rates were lowest during 1893 and 1894. In the latter part of the decade a revival in business brought a steady appreciation in the value of securities. Beginning with 1896, and continuing for five or six years large gains were made from increases in market values. The year 1900 shows depreciation in values, a temporary check to the upward movement which went on again during 1901 and 1902, to be followed by a severe depression in market values during 1903. During the final year included in the tables great gains from investment fluctuation were made. In that year every one of the twenty-nine companies save two made a higher earning rate than they made in the previous year. In the five years since 1900, inclusive, one-sixth of the annual rates have been below four per cent. and one-half have been below five per cent. Eighteen companies never made six per cent. once, and only one company again made six per cent. throughout the five years.

This completes the study of the rates earned by total assets. Five and one-half decades have been covered. In summarizing, we see that the rates from 1850 to 1859 averaged somewhat below six per cent. During the sixties the rate rose rapidly until more than a seven per cent. earning rate was prevailing, and eight to twelve per cent was not uncommon. Since that

time the earning rate has declined more or less unsteadily, but nevertheless surely downward. The early seventies had a six and one-half per cent. earning, the latter part of the decade was characterized by a six per cent. rate. Five and one-half per cent. was a fair average for the eighties and five for the nineties. Since 1900 four and one-half per cent. has been common, though there have been sharp fluctuations.

Of almost equal interest to the rate of earning power of the total assets is the rate earned by particular classes of assets. It is unfortunate that the state reports do not give the income account of each class of securities designated in the previous chapter. However, the reports do itemize the income coming from large classes of assets. The income from real estate, mortgages, bonds, and stocks has been returned, divided under these heads almost from the start. From the previous chapter what sort of securities go to make up the bonds and stocks of each company may be seen. Tables will now be given compiled in the same manner as the ones just given for total assets which show the earning rate of real estate, mortgage loans, and bonds and stocks.

The real estate asset will be discussed first. As was said earlier, no taxes, no cost of repairs, no cost of investment or expense has been considered in finding out what the earning power of real estate has been. In the following tables the same companies are included as were embraced in the preceding tables.

EARNING RATE OF REAL ESTATE.

Year.	Aetna.	Berkshire.	Connecticut Mutual.	Equitable.	Germania.	Home.	John Hancock.	Manhattan.	Massachusetts Mutual.	Metropolitan.
1860	......	......	.....	......	......	......	......	1.8	16.7	.....
1861	......	......	.....	......	......	......	......	1.0	9.1	.....
1862	......	......	.....	......	......	......	......	.....	9.1	.....
1863	......	......	7.3	......	......	......	......	2.1	9.1	.....
1864	......	......	3.3	......	......	......	......	0.0	9.1	.....
1865	......	......	5.1	......	......	......	......	.....	18.2	.....
1866	......	10.0	5.4	6.8	......	......	......	0.0	0.0	.....
1867	......	1.8	7.4	3.9	......	......	......	.....	4.0	.....
1868	......	3.6	6.0	0.6	......	......	......	.....	5.3	.....
1869	......	4.0	4.5	......	......	......	......	.....	7.4	.....
1870	......	4.5	0.6	4.9	......	......	......	.....	6.4	.....
1871	......	4.9	.....	5.3	......	1.2	......	.....	5.6	.....
1872	......	4.9	1.0	4.3	......	2.4	......	.....	5.0	.....
1873	......	5.0	1.5	5.2	......	3.5	......	.....	0.0	.....
1874	......	4.5	2.8	3.5	......	2.8	......	.....	2.0	.....
1875	......	4.5	2.2	4.2	9.1	3.9	......	.....	3.2	.....
1876	......	4.1	3.0	5.9	1.9	3.4	8.3	.....	2.7	8.9
1877	......	6.2	2.8	—0.1	5.3	......	6.3	1.2	1.0	9.9
1878	......	2.1	2.6	4.7	4.7	......	2.8	2.3	8.4	13.9
1879	......	2.8	2.0	4·7	3.0	......	4.5	3.3	7.2	14.7
1880	......	3.4	2.7	4.4	—7.5	—6.5	4.4	3.9	10.4	7.1
1881	......	2.8	3.6	5.4	4.3	1.1	3.6	1.2	5.6	17.1
1882	......	3.7	6.5	4.8	3.6	1.8	4.8	6.4	6.3	14.0
1883	......	1.9	4.4	4.9	4.8	1.2	3.8	5.4	7.1	—0.5
1884	......	3.0	4.5	4.6	6.2	1.3	3.3	5.9	—13.2	6.8
1885	......	4.1	4.7	4.6	6.2	0.4	3.3	6.7	9.1	6.1
1886	......	4.8	4.0	3.3	9.6	0.5	3.3	8.4	5.9	6.3
1887	......	5.2	4.1	2.4	13.1	3.7	27.1	9.4	8.8	3.1
1888	......	4.1	2.3	2.7	4.1	4.4	5.3	1.6	—3.5	3.9
1889	2.0	3.5	1.0	3.4	4.0	5.4	—4.2	2.0	0.7	6.0
1890	3.6	4.2	4.2	3.2	3.1	5.5	0.2	33.1	—4.5	2.8
1891	3.6	4.4	4.6	3.9	4.2	5.5	1.7	23.1	3.9	2.3
1892	2.4	4.5	4.4	6.3	4.7	40.2	6.4	5.1	8.4	1.6
1893	2.8	3.8	2.4	3.5	5.8	3.3	4.3	1.4	5.4	1.8
1894	6.3	2.4	4.0	4.2	6.4	2.9	7.6	6.4	0.0	6.9
1895	7.3	7.2	3.6	4.0	6.0	4.2	7.3	8.4	—3.6	3.4
1896	5.9	3.6	3.2	4.5	6.3	5.6	5.4	7.4	3.3	4.2
1897	8.5	4.5	3.3	4.6	6.1	5.1	7.3	5.6	4.4	1.0
1898	13.9	4.8	3.0	5.0	5.8	5.5	7.4	5.0	5.2	4.9
1899	10.8	5.3	4.1	5.4	6.2	3.0	8.2	4.0	4.5	5.1
1900	10.0	6.1	3.3	5.5	6.6	4.9	8.6	5.6	7.4	4.7
1901	9.7	6.4	3.8	5.3	4.2	5.6	8.9	9.3	5.7	5.6
1902	7.2	6.3	4.0	5.1	8.0	6.0	8.4	6.2	4.5	5.3
1903	7.4	7.4	4.7	5.2	8.4	6.1	7.5	5.2	3.9	5.3
1904	6.9	7.6	5.0	3.8	7.6	4.7	5.8	7.0	3.9	3.7

EARNING RATE OF REAL ESTATE.

Year.	Michigan Mutual.	Mutual.	Mutual Benefit.	National.	New England.	New York.	North-western.	Pacific.	Penn.	Phœnix.
1860	......	......	1.4	....	....	6.2	......	......	......	.....
1861	......	......	1.2	....	6.0	3.8	......	......	......	.....
1862	......	......	......	....	6.0	.....	......	......	......	.....
1863	......	......	3.8	....	5.6	.....	......	......	......	.....
1864	......	......	......	....	5.7	.....	......	......	......	.....
1865	......	3.5	1.2	0.0	5.7	.....	......	......	......	.....
1866	......	6.4	2.3	0.0	6.2	.....	......	......	......	.....
1867	......	7.4	2.0	0.0	4.2	.....	......	......	......	.....
1868	......	6.7	2.5	0.0	....	.....	......	......	......	.....
1869	......	7.4	2.2	9.1	5.3	.....	......	......	5.6	.....
1870	......	4.0	2.1	0.0	....	.....	0.7	......	2.8	.....
1871	......	......	2.1	7.7	4.9	4.8	2.9	......	1.7	.....
1872	......	4.6	2.1	7.1	5.5	6.3	3.2	......	1.5	.....
1873	......	2.7	2.0	7.7	6.6	4.7	3.2	......	0.6	.....
1874	......	1.7	1.9	7.1	3.5	4.7	3.0	......	......	.....
1875	......	1.6	1.5	5.9	2.4	3.4	2.0	......	25.3	.....
1876	......	1.8	0.8	5.9	3.4	2.7	1.4	......	—4.1	0.6
1877	....	1.2	—4.5	1.0	3.7	—6.4	0.9	......	3.2	0.6
1878	......	1.2	0.3	1.5	4.3	1.8	0.6	7.0	1.3	2.0
1879	......	2.3	0.1	1.9	4.9	1.9	0.5	—4.7	3.5	4.2
1880	......	2.9	0.1	3.6	5.0	7.1	0.4	0.0	1.4	6.7
1881	......	3.2	—3.6	4.0	5.5	3.3	0.5	11.5	3.7	7.0
1882	......	3.1	2.2	4.0	5.3	3.1	0.5	—4.0	3.8	5.6
1883	......	2.8	2.3	4.4	5.0	3.2	3.4	—0.7	8.0	5.1
1884	......	2.7	2.3	4.0	5.0	2.4	3.1	0.8	0.7	6.2
1885	.....	3.4	1.7	3.3	5.4	1.6	2.6	......	5.0	4.2
1886	......	3.7	1.2	3.7	5.3	1.2	3.2	......	4.0	4.4
1887	......	3.9	1.8	3.4	4.7	1.3	—7.5	......	3.9	3.9
1888	......	3.5	1.5	4.2	5.0	1.1	5.0	1.6	4.3	3.8
1889	1.8	3.5	1.4	5.6	5.7	3.6	6.4	2.6	1.7	4.4
1890	......	5.2	1.1	4.0	5.7	2.5	6.0	0.6	1.6	4.2
1891	2.6	5.1	2.9	3.3	4.9	4.4	6.1	0.3	3.1	4.5
1892	3.0	4.9	4.3	2.7	5.0	4.8	6.0	0.9	3.4	4.0
1893	2.5	4.6	2.8	2.3	4.2	3.0	5.6	2.2	2.1	2.6
1894	2.7	4.4	3.9	2.1	4.2	4.8	6.7	2.0	3.8	3.7
1895	0.0	3.4	3.2	3.4	4.4	4.5	8.8	2.0	4.1	—0.5
1896	—0.6	—2.7	—5.0	3.8	4.6	—6.6	8.4	3.0	3.0	—3.3
1897	—0.8	—6.2	—0.2	4.0	5.0	4.5	8.8	3.8	4.5	3.5
1898	—0.2	—2.4	3.1	5.4	5.0	3.9	9.1	3.9	5.8	4.2
1899	4.0	5.6	5.2	6.0	5.4	5.4	9.2	2.0	6.4	4.9
1900	4.0	4.6	—1.0	7.6	6.0	5.8	10.8	2.6	8.8	6.6
1901	7.0	4.5	6.5	7.2	7.7	6.3	10.9	—25.0	9.5	8.6
1902	5.0	4.7	6.6	7.5	7.6	7.6	10.7	4.5	7.1	9.5
1903	4.4	4.9	6.6	7.9	8.1	7.6	11.6	5.7	6.6	5.0
1904	4.5	4.8	5.6	8.0	8.2	7.5	10.2	5.0	7.0	5.6

EARNING RATE OF REAL ESTATE.

Year.	Provident Life and Trust.	Provident Savings.	Prudential.	State.	Travelers'.	Union Central.	Union Mutual.	United States.	Washington.
1860	.....	.....	.....	.....	.....	.....	.....	.....	.....
1861	.....	.....	.....	.....	.....	.....	.....	.....	.....
1862	.....	.....	.....	.....	.....	.....	.....	.....	.....
1863	.....	.....	.....	.....	.....	.....	.....	.....	.....
1864	.....	.....	.....	.....	.....	.....	.....	.....	.....
1865	.....	.....	.....	.....	.....	.....	.....	.....	.....
1866	.....	.....	.....	.....	.....	.....	.....	.....	.....
1867	.....	.....	.....	8.0	.....	.....	.....	.....	.....
1868	.....	.....	.....	11.5	.....	.....	.....	.....	.....
1869	.....	.....	.....	11.1	.....	.....	.....	.....	.....
1870	7.1	.....	.....	.....	.....	.....	.....	.....	.....
1871	.....	.....	.....	4.0	.....	.....	.....	.....	.....
1872	.....	.....	.....	.....	.....	.....	.....	.....	.....
1873	.....	.....	.....	.....	.....	.....	6.5	.....	.....
1874	.....	.....	.....	.....	1.4	3.0	8.2	.....	.....
1875	0.9	.....	.....	6.3	1.2	6.3	7.6	.....	.....
1876	4.6	.....	.....	.....	0.9	7.6	0.5	.....	.....
1877	2.8	.....	.....	.....	0.7	—1.1	1.6	.....	.....
1878	0.9	.....	.....	.....	0.8	5.1	1.5	.....	.....
1879	.....	.....	.....	.....	1.1	5.3	1.7	1.8	.....
1880	0.2	.....	.....	.....	—2.1	5.6	1.9	3.0	.....
1881	0.8	.....	.....	.....	.0	4.7	1.7	6.5	2.4
1882	1.0	.....	.....	.....	—7.8	4.5	2.3	15.7	9.7
1883	1.2	.....	.....	.....	—2.6	11.5	2.3	33.8	1.2
1884	1.4	.....	.....	.....	—6.6	7.0	3.0	16.1	—1.0
1885	1.9	.....	.....	.....	5.5	3.8	2.9	—5.7	1.6
1886	1.7	.....	5.0	.....	2.1	10.4	2.2	12.1	3.8
1887	1.4	.....	4.0	1.4	0.5	3.2	1.4	3.0	3.8
1888	0.9	.....	4.0	1.2	—2.4	3.7	1.4	10.7	3.6
1889	0.1	.....	9.0	1.7	12.3	—2.1	1.3	—3.8	3.4
1890	1.4	.....	2.3	5.3	2.2	8.2	2.0	14.7	3.0
1891	2.1	.....	.....	5.5	—2.5	1.4	2.1	—50.9	2.2
1892	1.4	14.7	3.6	5.8	3.0	5.5	2.1	0.0	2.2
1893	2.0	5.0	5.0	3.3	—0.8	3.5	2.2	—18.0	2.7
1894	1.5	10.9	5.5	6.5	14.8	2.7	3.0	1.8	1.7
1895	1.3	11.3	6.0	6.1	4.3	0.0	2.8	5.7	2.5
1896	1.1	10.3	6.4	—1.4	3.2	1.3	2.6	9.2	1.8
1897	1.0	2.7	6.5	5.2	6.0	2.5	2.9	—2.4	1.1
1898	1.4	14.4	6.6	6.2	4.2	3.2	2.9	5.1	4.0
1899	1.3	18.7	5.7	6.1	6.2	4.1	2.0	4.9	11.0
1900	2.2	13.8	5.4	5.1	6.3	—4.6	1.9	6.5	4.6
1901	3.3	33.3	—4.9	6.4	—2.7	15.0	3.1	1.9	5.6
1902	4.1	20.3	7.2	7.0	7.0	11.7	4.2	9.6	5.9
1903	4.0	13.0	6.1	6.8	7.8	6.6	4.6	18.3	7.2
1904	3.7	16.2	2.9	7.6	8.8	12.8	4.9	12.2	2.4

The statistics show in general a fair average earning rate on real estate during the sixties. In the seventies, when the companies had become the possessors of large amounts of property secured through foreclosure of mortgage loans, the earning rate of real estate compares unsatisfactorily with the rate made on total assets. The very fact that foreclosure was necessary indicated that the property so secured was not productive. In numerous instances the companies suffered a loss in market value so great that negative rates of earning power are not uncommon during the decade of the seventies and the one following. From 1870 to 1889 inclusive, one hundred and sixty-four times was the earning rate of real estate under three per cent. The early nineties did not bring any improvement in the earning rate. In the entire decade of the nineties, eighty-seven of the two hundred and ninety annual earning rates were again below three per cent.

During the last ten years real estate has been making a better gross rate steadily. Real estate, in common with other things, has experienced a rise in price. This has made a better earning power through a gain in market values. Cities have been growing rapidly and the real estate which the companies had obtained through foreclosure of mortgages has been sold at such a price that the companies have been enabled to make a gain from the sale. The gross earning rate has risen rapidly. Only ten rates for all the companies since

1900, inclusive, have been as low as three per cent.

When a comparison is made of the rate earned by real estate with the rate earned by the total assets year by year for each company, it will be seen that nearly every company has suffered from holding real estate. If such a comparison be made, it is found that five hundred and ninety-seven of the annual rates on real estate are below the rates for the same years earned by the total assets. Only three hundred and nineteen of the real estate rates are higher than the total asset earning rate.

So far in discussing the low rate earned by real estate, reference has been made only to real estate secured through foreclosure of mortgage loans as a source of loss to the companies. Undoubtedly such real estate has been a loss to the companies, but as such it should be considered in connection with the rate earned by mortgage loans. Most of the real estate which has made up the large total of such an asset consists of home office buildings and other buildings necessary for the transaction of the business of the companies. Real estate necessary for the business of the company is the only real estate allowed by most of the states for the companies to hold. However, under this permission, buildings, as we have already seen, have been erected of which only a small part is used by the company. These buildings have in the main been erected for advertising purposes. As such they may be success-

ful, but despite the liberal allowance of rent which the company pays to itself for the use of its own office building, as an investment to secure good earning rates these office buildings have been failures. The investment of capital in large office buildings is at best an investment attended by unavoidable risk when those buildings are erected with but one purpose in view, namely, to get a good return on the investment. When erected with a double purpose in view, the earning rate of real estate given in the preceding tables is the result. What might be obtained from real estate investments if the companies were to enter upon a definite policy in regard to them is not known. We have already noticed in a previous chapter that the French companies, when forced by circumstances to invest their funds in real estate, did so very successfully from the earning standpoint. Certainly companies in this country would have invested with different results if they had not had the advertising in view which a huge and expensive building is thought to give them.

Of far more importance than the earning rate of real estate is that of mortgage loans. Mortgages have formed so large a proportion of the total assets, and as an asset they have such a homogeneous character that the rate of earning power realized on this asset is of great interest. The following tables have been compiled in the same manner as the preceding ones and again for the same companies.

EARNING RATE OF MORTGAGE LOANS.

Year.	Aetna.	Berkshire.	Connecticut Mutual.	Equitable.	Germania.	Home.	John Hancock.	Manhattan.	Massa-chusetts Mutual.	Metro-politan
1860	......	......	8.2	......	......	......	......	......	......	...
1861	......	......	7.3	5.3	8.7	8.8	......	......	......	....
1862	......	......	10.3	6.1	6.4	6.7	......	3.4	......	....
1863	......	......	9.9	7.0	7.5	5.5	......	5.0	6.0	...
1864	......	5.0	3.9	.....	6.5	9.5	......	6.5	7.0	....
1865	8.0	7.8	9.8	6.1	10.0	4.2	......	7.5	5.8	....
1866	3.1	7.5	......	5.1	6.7	6.1	......	6.4	5.1	....
1867	3.9	6.1	8.5	6.7	6.8	8.0	......	7.9	6.7	....
1868	8.0	8.0	8.0	7.1	7.2	16.4	5.3	5.1	7.5	....
1869	7.6	8.8	8.2	7.2	7.5	6.8	....	6.8	7.1	....
1870	10.1	11.7	8.3	7.3	8.0	7.7	8.3	7.5	6.7	....
1871	8.9	9.9	7.5	......	7.0	......	7.1	8.5	6.9	....
1872	11.6	7.3	6.8	......	7.2	......	11.9	8.3	8.9	....
1873	12.2	7.5	8.2	......	7.3	......	12.2	8.0	......	....
1874	10.3	7.5	7.8	......	7.0	......	3.7	8.7	8.0	...
1875	10.8	7.8	7.1	6.9	6.3	......	6.6	6.9	8.2	7.2
1876	9.7	8.5	8.6	7.2	7.6	......	7.9	7.3	8.7	7.2
1877	9.3	6.5	8.4	7.6	7.4	......	6.9	6.9	5.4	6.6
1878	9.0	6.7	7.4	6.8	7.0	......	7.1	5.7	6.3	6.7
1879	8.1	7.1	4.4	7.5	6.9	......	6.7	7.4	6.8	7.2
1880	8.0	6.8	7.5	6.2	6.5	......	7.6	5.9	5.9	6.2
1881	7.7	6.9	7.1	6.1	6.7	......	6.3	6.0	7.0	6.0
1882	7.0	6.7	6.6	6.0	6.3	......	5.9	4.2	7.3	6.4
1883	6.7	6.2	6.5	6.0	6.2	......	6.0	5.9	7.9	6.0
1884	6.7	5.1	6.4	6.6	6.2	......	5.8	6.0	7.1	5.5
1885	6.5	5.8	6.2	4.5	5.6	......	5.7	5.4	7.0	5.4
1886	6.4	6.5	6.2	5.1	5.3	......	5.9	5.1	9.1	5.1
1887	6.6	5.7	6.2	4.8	5.5	18.5	6.1	5.1	8.1	6.1
1888	6.6	5.7	6.1	7.3	5.3	15.6	6.0	5.1	7.7	5.6
1889	6.5	5.9	6.0	7.4	5.4	12.6	6.1	4.5	8.2	6.0
1890	6.3	6.0	6.1	8.1	5.3	11.4	6.2	5.1	7.9	5.6
1891	6.5	5.9	6.1	6.6	5.1	7.6	6.2	4.9	8.0	5.5
1892	6.3	5.9	6.0	4.3	5.1	7.2	6.1	5.1	7.7	5.6
1893	6.3	6.2	6.0	4.5	5.3	6.8	6.1	4.9	7.4	5.2
1894	6.4	5.7	6.0	4.9	5.1	6.2	5.3	5.1	7.7	5.3
1895	6.4	5.9	6.0	4.3	5.1	6.7	5.8	5.1	8.0	4.9
1896	6.2	5.7	6.1	4.9	5.1	6.3	5.7	5.1	7.5	5.1
1897	6.3	5.5	6.0	4.7	5.2	6.3	4.8	4.9	4.1	5.3
1898	6.8	5.1	5.8	5.2	5.1	5.5	5.3	5.3	5.1	5.2
1899	5.9	5.3	6.6	4.9	5.0	6.4	5.2	4.8	5.1	4.9
1900	5.7	4.8	5.7	4.6	5.2	5.5	5.4	4.8	5.1	5.3
1901	5.4	4.9	5.4	4.4	5.5	6.3	5.3	4.8	5.0	5.2
1902	5.1	4.9	5.3	4.6	4.9	6.5	5.6	4.9	4.7	5.2
1903	5.2	4.6	5.2	4.2	4.9	4.5	5.3	4.8	4.7	5.2
1904	5.4	5.1	5.0	4.4	4.8	4.6	5.2	4.8	4.8	5 2

EARNING RATE OF MORTGAGE LOANS.

Year.	Michigan Mutual.	Mutual.	Mutual Benefit.	National.	New England.	New York.	North-western.	Pacific.	Penn.	Phoenix.
1860	......	......	8.6	9.0	6.5	7.1	......	.....	.....	....
1861	......	......	6.7	8.0	6.1	5.7	......	.....	......	....
1862	......	......	7.9	6.3	6.3	10.4	......	.....	......	....
1863	.....	7.3	......	8.7	5.6	6.7	......	.....	......	....
1864	......	4.1	7.6	9.0	5.1	6.2	......	.....	......	7.8
1865	......	6.5	7.2	8.3	5.3	7.7	......	.....	.....	4.4
1866	......	7.3	6.4	7.5	6.4	5.4	......	.....	......	....
1867	......	9.8	7.7	8.0	8.0	7.0	......	.....	......	....
1868	......	......	6.7	8.6	4.5	7.5	7.2	.....	......	....
1869	......	7.1	7.3	9.4	6.8	7.0	8.1	.....	2.3	....
1870	......	7.3	8.4	10.0	......	7.0	8.5	.....	8.6	12.2
1871	10.0	......	7.3	8.6	9.9	7.7	8.0	.....	5.8	....
1872	8.7	6.8	......	8.6	9.2	8.1	7.5	.....	12.3	....
1873	11.1	6.9	.....	8.2	2.4	8.1	8.6	.....	7.5	....
1874	9.4	7.2	......	7.4	9.2	......	9.3	.....	6.6	....
1875	......	7.1	6.6	7.4	7.5	6.9	9.8	.....	7.0	7.9
1876	......	7.0	6.6	7.2	6.8	6.9	9.8	.....	7.2	8.7
1877	......	6.9	6.9	3.8	6.5	6.4	9.6	13.3	7.4	6.9
1878	......	6.6	6.4	6.8	5.7	6.3	9.1	9.4	6.6	7.2
1879	11.1	6.9	7.0	6.1	6.1	6.5	9.3	11.8	6.5	5.5
1880	10.3	6.7	6.5	6.1	5.9	6.3	8.2	5.2	6.3	7.3
1881	9.4	6.6	6.7	4.7	5.3	5.7	7.5	8.5	6.1	7.3
1882	9.0	6.2	6.1	6.4	5.8	6.1	6.9	9.2	5.9	7.4
1883	7.8	6.0	5.6	6.3	5.2	6.1	6.5	8.2	5.6	7.2
1884	8.0	5.8	5.8	7.1	4.7	5.9	6.6	8.5	5.5	6.8
1885	7.6	5.8	6.3	6.9	5.2	5.5	6.4	9.3	5.7	6.9
1886	6.7	5.7	6.3	6.7	5.4	5.8	6.5	9.0	5.9	6.9
1887	7.4	5.5	6.4	6.9	5.2	5.2	6.1	9.1	6.2	6.9
1888	7.3	5.9	6.2	6.9	5.7	5.5	6.2	9.6	6.1	7.0
1889	7.2	4.0	6.2	6.9	5.9	6.0	6.4	9.0	6.2	7.2
1890	......	5.2	6.0	7.1	5.9	5.5	5.9	7.8	6.2	6.8
1891	6.2	5.5	6.0	6.3	5.7	5.5	5.8	8.4	6.2	6.9
1892	6.5	5.4	6.0	6.7	5.4	5.2	6.0	9.7	6.3	6.6
1893	6.5	4.6	5.6	5.8	5.7	5.7	5.8	7.9	6.2	6.6
1894	6.2	5.5	5.9	5.9	5.6	5.4	5.8	8.3	6.2	6.2
1895	6.1	5.5	6.2	6.1	4.9	5.0	5.7	7.0	6.1	6.3
1896	6.5	5.3	6.0	5.0	4.8	5.2	5.2	6.3	5.3	6.3
1897	6.6	5.2	5.9	2.4	4.2	4.9	5.5	6.6	5.7	6.5
1898	6.4	5.3	5.9	4.9	4.7	4.9	5.4	6.0	5.3	6.5
1899	6.0	5.0	5.7	4.2	4.4	4.8	5.0	5.5	5.4	6.2
1900	5.8	4.8	5.5	5.4	4.7	4.7	4.9	5.4	5.3	5.9
1901	5.6	4.7	5.1	4.8	4.3	4.5	4.8	5.4	5.4	5.8
1902	5.3	4.6	5.0	5.2	4.4	4.4	4.6	6.0	5.3	5.6
1903	5.3	4.6	5.1	5.4	4.2	4.3	4.6	5.2	5.2	5.5
1904	5.3	4.7	5.1	5.4	4.2	4.5	4.8	5.3	5.2	5.4

EARNING RATE OF MORTGAGE LOANS.

Year.	Provident Life and Trust.	Provident Savings.	Prudential.	State.	Travelers'.	Union Central.	Union Mutual.	United States.	Washington.
1860	......	......	......	......	......	......	......	......	......
1861	......	......	......	......	......	......	......	......	7.7
1862	......	......	......	......	......	......	......	......	7.7
1863	......	......	......	......	......	......	......	......	6.0
1864	......	......	......	......	......	......	6.6	......	8.7
1865	......	......	......	......	......	......	8.5	......	8.0
1866	......	......	......	......	......	......	6.8	......	7.0
1867	......	......	......	......	......	......	8.1	......	7.3
1868	......	......	......	......	......	......	8.9	......	6.7
1869	7.9	......	......	......	......	......	8.8	......	7.0
1870	7.0	......	......	......	......	......	8.6	......	7.1
1871	......	......	......	......	......	......	6.5	......	6.8
1872	......	......	......	......	......	......	7.5	......	6.8
1873	......	......	......	......	......	......	9.1	......	7.2
1874	......	......	......	......	9.8	......	8.3	......	6.7
1875	5.5	......	......	......	9.0	5.6	6.1	7.1	6.7
1876	6.4	......	......	......	10.4	8.8	5.8	7.0	6.4
1877	6.4	......	......	......	7.9	7.8	6.1	6.9	6.8
1878	6.6	......	......	......	4.9	8.1	4.8	6.7	4.6
1879	6.3	......	4.0	......	7.1	8.2	5.6	6.4	5.7
1880	5.5	9.1	5.0	......	7.4	8.7	5.6	5.4	6.0
1881	5.8	5.9	6.5	......	8.6	8.1	5.7	5.6	5.9
1882	4.5	5.9	6.2	......	8.3	7.5	5.8	5.8	5.9
1883	5.6	5.6	6.2	......	6.2	7.7	7.7	5.1	5.6
1884	5.8	5.3	5.2	......	8.3	7.2	9.1	5.3	5.7
1885	5.9	5.3	7.8	......	8.1	7.4	—0.2	5.6	6.5
1886	6.1	6.0	9.4	......	7.5	7.8	5.2	5.0	5.7
1887	6.1	5.3	5.0	5.0	7.3	7.7	5.7	5.0	5.3
1888	6.2	6.0	5.1	5.0	7.5	7.8	5.2	4.8	5.4
1889	6.2	5.7	5.5	5.0	7.5	7.4	5.5	4.9	5.3
1890	6.2	5.3	5.6	5.5	7.4	7.8	6.3	4.9	5.1
1891	6.3	6.7	5.8	5.4	7.1	7.4	5.5	5.7	5.1
1892	6.4	5.3	5.7	5.4	6.6	7.5	5.3	5.2	5.2
1893	6.3	5.4	6.0	5.9	6.2	7.8	6.1	5.1	5.1
1894	6.6	6.2	6.0	4.7	6.6	7.7	5.6	5.1	5.2
1895	6.2	6.2	5.4	5.0	6.1	7.7	6.0	5.0	4.9
1896	5.3	5.9	5.5	5.1	5.4	7.6	6.2	5.1	5.1
1897	5.9	6.1	5.4	4.7	5.7	7.7	6.1	5.1	5.4
1898	5.8	5.8	5.5	5.0	6.4	7.1	6.2	4.9	5.7
1899	5.0	5.0	5.2	4.6	5.5	7.2	5.9	5.1	5.8
1900	4.7	5.1	5.0	4.6	5.5	7.0	6.2	5.3	5.1
1901	5.3	4.9	5.1	4.7	5.8	6.6	5.2	5.1	5.1
1902	5.6	5.6	5.0	4.5	5.5	6.8	5.1	5.0	5.1
1903	5.2	5.4	5.0	4.5	5.4	6.7	5.2	5.1	5.3
1904	5.8	6.1	5.1	4.5	5.4	6.6	5.3	5.1	6.0

If there is any objection to the rate of earning power found for the total assets and for real estate, and as will be found for bonds and stocks, because items of investment fluctuation are included, that objection will not apply to the rate found on mortgage loans. A mortgage is an investment by secured loan, and hence in general has a fixed foreknown return, while real estate and stocks are investments by purchase and actual ownership of the property bought. This differentiates mortgage loans from real estate and stocks. On the other hand mortgages differ from bonds in that there is no exchange where mortgages are bought and sold. As a result the item of investment fluctuation is practically absent in regard to mortgages, and the rate of earning power is the same as the rate of interest obtained by the use of the same formula.

There are six companies whose mortgage investments extend back to 1860. Four of these companies in that year made more than eight per cent. on their mortgage loans, one made seven per cent., and the other one six and one-half per cent. This was a rate almost two points higher than was realised by these companies on their total assets, explaining to no small degree the reason for the large proportion of the assets which mortgages then formed. High as the rate was at the beginning of the decade it was increased until an annual rate of even more than ten per cent. was earned on mort-

gage loans. As the rate of earning power on mortgage loans is the interest rate, this ten per cent. earning power means a ten per cent. interest rate. For a company to earn this rate on all its mortgage loans indicates that a portion of them was earning a higher rate, which indeed was true. The rate in the middle Western States, Illinois and Iowa, was generally ten to twelve per cent. during this decade [1] and even later. In the seventies more of the insurance money was loaned in the West, and the level of rates earned on mortgages was above the high average of the sixties. In the decade, 1860–69, one-fourth of the rates earned by mortgages were above eight per cent., in the following decade one-third of the annual rates were above ten per cent. In the previous decade, one-sixth of the annual rates had been below six per cent., from 1870–79 scarcely none were below that rate.

Conditions changed rapidly during the eighties. In this decade, only one-tenth of the annual rates on mortgage loans were above eight per cent., a striking contrast to the one-third above ten per cent. ten years earlier. The rates below six per cent. formed one-third of the total number of annual rates. However, lower levels were to be reached quickly. From 1890 to 1899

[1] For the rate of interest in the West before 1860, see the report of the committee on the interest rate to the Second Life Insurance Convention, 1860, found in the United States Insurance Gazette and Magazine. Volume XI, Page 214.

only six annual rates reached ten per cent., and nearly two-thirds were now below six per cent. In the last five years, no company has earned eight per cent. on its mortgage loans, and only one, the Union Central, has succeeded in earning steadily six per cent. Besides this one company six per cent. on mortgage loans has been made twice since 1900 by one company, and once apiece by two other companies. Beyond these, all the annual rates on mortgages have been below six per cent. Thus, a rate of six per cent. is now realised nearly so frequently as was a rate of ten per cent. thirty years ago. The rate in fact has gone considerably below six per cent. Since 1899 more than one-third of the annual rates earned by mortgage loans have been below five per cent. Eleven of the twenty-nine companies for several years have made on mortgage loans little more than an average rate of four and one-half per cent.

No item of loss has been considered in securing the rates on mortgage loans. When a mortgage loan depreciates in value because of the inability of the borrower to pay the interest, the company forecloses the mortgage. If the property cannot be sold for more than the amount of the mortgage, the company takes the real estate as owner at a value equal to the amount of the mortgage. If the company later sells the property at a price equal to the amount of the mortgage plus the accrued interest, there is no loss to be ascribed to any

asset. If the property is sold at a loss, the deficiency is ascribed to real estate, when it really should be taken account of in the mortgage account. The state reports have never separated the two classes of real estate, so that it is impossible to find out how much of the loss from real estate should be considered as due to mortgage loans. In 1902, the Insurance Spectator wrote letters to thirty-two life companies in regard to their experience with foreclosed property. In general the answers indicated that the losses have been small. The Germania through its President replied that the company had loaned fifty-two millions on mortgages. Two and three-quarter millions worth of real estate had been acquired through foreclosure, one-half of which had been sold with a net loss of only eleven thousand dollars. The President of the Penn Mutual replied that there had been enough profit upon foreclosed properties to more than offset all losses. The experience of the Union Central is of importance because of its large proportion of mortgages to total assets, and because of the high rate it is yet earning. President Pattison answered that the Union Central had during thirty-five years made mortgage loans to the extent of fifty million dollars. The total loss upon realty obtained through foreclosure had been less than one-tenth of one per cent. In one state where four million dollars had been loaned on real estate security in twenty years not a single

mortgage had been foreclosed, nor had the due and unpaid interest at the end of any year exceeded two hundred dollars. Other replies were more or less favorable. The conclusion can be safely reached that with the exception of a few companies the rate which has been found for mortgages in the preceding tables needs little reduction on account of losses through foreclosure of the loans.

We now come to the last class of assets of which it is possible to find the rate of earning power. The following tables give this rate for bonds and stocks.

EARNING RATE OF BONDS AND STOCKS.

Year.	Aetna.	Berkshire.	Connecticut Mutual.	Equitable.	Germania.	Home.	John Hancock.	Manhattan.	Massa-chusetts Mutual.	Metro-politan.
1860	.....	.....	13.0	—1.9	.....	.....	.....	.....	.....	.....
1861	.....	.....	0.5	—3.2	—10.0	5.9	.....	.....	.....	.....
1862	.....	.....	3.2	14.8	27.8	24.2	.....	.....	.....	.....
1863	.....	.....	18.0	12.3	17.2	14.7	.....	10.6	15.5	.....
1864	8.7	11.7	18.1	.....	12.3	20.3	.....	11.3	21.5	.....
1865	.....	3.7	2.5	10.3	3.8	4.2	.....	3.7	2.4	.....
1866	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
1867	11.6	12.3	8.7	9.5	.....	.....	.....	.....	11.4	.....
1868	.....	10.4	9.9	.....	13.3	8.7	.....	.....	11.1	.....
1869	.....	9.8	11.3	.....	10.9	12.8	.....	.....	17.8	.....
1870	.....	9.6	12.0	.....	4.9	6.3	7.2	.....	4.7	.....
1871	8.2	7.1	7.4	.....	9.0	.....	11.3	10.9	10.3	.....
1872	3.1	6.4	3.1	.....	5.8	.....	5.5	6.3	8.0	.....
1873	7.4	5.8	5.9	.....	3.8	.....	2.0	4.2	2.2	.....
1874	7.9	9.5	8.0	.....	11.6	.....	7.0	7.6	4.2	.....
1875	9.5	—3.4	12.3	2.5	4.0	.....	5.0	10.4	2.9	9.7
1876	7.8	2.4	5.0	2.4	5.8	.....	4.6	—0.8	0.2	4.4
1877	6.0	2.4	4.2	3.5	1.9	.....	5.5	8.1	5.5	11.2
1878	7.9	7.1	5.7	5.8	5.5	.....	4.3	—3.9	10.8	7.5
1879	7.3	5.3	6.2	6.9	5.1	.....	7.6	8.8	16.9	9.2
1880	9.9	5.3	8.6	13.8	8.6	.....	10.6	10.7	15.3	12.2
1881	7.0	7.0	6.3	4.0	6.3	.....	3.0	6.9	8.0	3.1
1882	6.6	9.4	4.9	1.3	5.8	.....	3.8	7.7	5.4	4.8
1883	5.4	6.1	5.1	5.3	5.8	.....	6.1	7.3	4.5	3.0
1884	5.5	1.8	3.5	3.7	4.3	.....	5.2	5.5	—0.3	0.5
1885	7.4	4.6	8.5	15.3	8.4	.....	9.2	7.8	11.3	6.0
1886	6.0	5.9	7.2	10.7	6.6	.....	7.1	7.0	6.3	3.8
1887	4.7	3.1	3.9	7.9	2.8	4.4	3.4	3.6	3.9	4.7
1888	6.1	4.3	6.2	6.1	5.4	4.6	5.4	5.7	5.9	3.8
1889	6.0	3.9	4.9	7.3	5.3	4.6	5.4	4.4	7.0	5.2
1890	4.9	3.0	3.8	3.7	2.7	6.7	4.4	2.9	4.5	1.9
1891	4.9	4.5	6.9	9.3	8.7	5.3	5.9	6.5	5.5	6.6
1892	5.3	3.5	7.3	7.2	5.4	8.1	3.7	7.1	5.4	5.3
1893	3.9	3.9	2.1	2.2	2.2	3.6	5.3	2.3	2.1	2.6
1894	5.1	3.7	7.1	2.9	7.5	6.2	4.7	7.6	7.6	6.0
1895	4.7	3.9	5.9	4.1	5.1	3.0	4.7	6.6	4.5	4.4
1896	4.5	4.7	4.5	3.6	2.8	3.0	3.0	2.8	3.0	4.1
1897	6.6	6.5	6.5	5.8	6.9	4.8	6.3	8.8	7.9	7.3
1898	7.0	6.6	5.7	7.6	5.3	5.8	6.7	6.7	7.5	7.0
1899	5.6	5.2	3.8	4.4	3.4	4.2	4.8	5.4	4.4	6.6
1900	5.5	5.2	6.4	2.1	4.1	6.4	4.8	8.3	5.4	5.2
1901	6.4	6.6	4.6	5.1	6.3	6.4	4.8	5.5	3.7	7.1
1902	5.2	5.3	2.7	4.4	8.2	5.1	3.2	4.3	2.9	2.9
1903	3.0	2.3	0.7	2.2	3.2	0.2	2.9	1.3	1.7	0.2
1904	5.8	5.2	6.2	6.5	4.0	7.8	6.1	3.4	5.8	8.8

EARNING RATE OF BONDS AND STOCKS.

Year.	Michigan Mutual.	Mutual.	Mutual Benefit.	National.	New England.	New York.	North-western.	Pacific.	Penn.	Phœnix.
1860	....	......	7.8	6.1	5.8	1.7	......	.....	.....	.....
1861	....	......	5.2	−8.1	5.8	−2.7	......	.....	.....	.....
1862	....	......	......	17.1	8.7	17.6	......	.....	.....	.....
1863	....	12.3	......	8.4	14.2	17.0	......	.....	.....	.....
1864	....	15.3	13.1	12.6	2.1	8.7	......	.....	.....	19.4
1965	....	−4.2	6.5	3.3	1.1	3.0	......	.....	.....	7.8
1866	....	......	......	......	......	......	......	.....	.....	.....
1867	....	13.4	8.1	10.6	......	12.4	......	.....	.....	.....
1868	....	......	9.1	10.9	6.5	7.2	......	.....	.....	.....
1869	....	......	9.0	7.8	13.6	9.3	......	.....	4.8	.....
1870	....	......	6.9	4.0	......	.....	0.0	.....	6.0	.....
1871	6.9	......	8.1	9.2	6.8	11.4	12.6	.....	4.4	.....
1872	6.9	6.0	......	5.3	5.9	7.4	9.3	.....	5.5	.....
1873	6.9	6.2	......	9.3	5.4	7.1	6.5	.....	6.5	.....
1874	8.9	8.1	......	8.0	7.5	......	16.5	.....	7.2	.....
1875	....	11.6	7.9	7.1	9.6	10.1	−1.1	.....	13.9	1.4
1876	....	−5.7	11.3	5.7	5.8	5.5	5.7	.....	7.4	0.5
1877	....	3.8	4.5	1.7	6.4	3.5	−0.7	0.0	2.2	4.0
1878	....	7.3	6.5	5.9	9.1	6.5	4.4	0.0	6.9	6.5
1879	8.3	4.4	7.7	6.4	6.8	7.4	7.1	0.0	10.1	11.4
1880	7.9	15.2	9.0	7.4	11.9	12.4	5.6	0.0	9.1	10.0
1881	6.2	8.6	5.1	6.1	6.3	7.0	4.8	0.0	7.3	6.3
1882	10.8	5.2	2.2	4.6	4.4	6.0	3.8	0.0	6.5	6.2
1883	1.1	7.1	2.6	5 6	4.8	6.2	5.2	0.0	5.9	5.6
1884	0.0	4.3	2.6	5.1	3.7	1.6	1.5	0.0	4.2	3.9
1885	....	11.2	4.0	5.1	8.2	11.7	1.9	16.7	8.0	6.4
1886	....	6.2	5.0	1.9	6.3	7.1	4.9	5.6	7.6	5.5
1887	....	3.9	3.8	5.5	1.4	4.7	4.4	6.1	5.7	5.0
1888	....	7.8	4.4	12.9	5.1	6.4	2.9	8.1	5.4	2.7
1889	50.0	1.5	4.0	5.3	5.3	5.8	8.3	6.7	5.7	6.2
1890	....	5.9	3.1	4.1	2.2	3.2	5.2	6.4	3.2	3.8
1891	100.0	5.2	5.0	5.4	5.2	4.2	4.4	7.3	6.7	4.7
1892	10.0	8.0	4.7	5.9	4.9	6.0	5.4	6.0	5.9	5.7
1893	5.0	2.9	3.9	4.6	1.1	4.2	5.0	5.5	11.0	4.5
1894	5.0	3.3	4.4	5.2	2.8	5.4	6.1	4.0	2.7	5.7
1895	5.0	3.4	5.0	5.1	5.1	5.4	3.4	7.7	11.4	4.8
1896	−10.0	5.0	3.9	4.5	4.2	5.4	4.0	7.5	1.2	5.5
1897	....	7.7	6.3	6.6	5.9	5.0	5.0	9.4	7.4	5.0
1898	1.0	8.8	5.4	5.3	6.4	6.5	5.8	8.0	7.3	6.1
1899	3.6	7.4	4.1	4.3	5.9	5.7	3.0	9.5	4.9	5.4
1900	8.3	5.7	6.5	2.8	4.9	5.5	4.9	8.4	5.9	6.5
1901	5.5	6.5	3.8	2.8	5.4	4.5	3.2	6.4	5.6	5.0
1902	1.8	4.7	2.6	3.6	3.7	4.2	2.3	5.6	4.8	2.4
1903	0.0	0.5	2.7	3.0	1.7	4.0	4.0	3.1	2.8	4.3
1904	7.1	8.5	5.6	3.3	5.0	4.2	6.7	5.0	6.8	5.6

EARNING RATE OF BONDS AND STOCKS.

Year.	Provident Life and Trust.	Provident Savings.	Prudential.	State.	Travelers'.	Union Central.	Union Mutual.	United States.	Wash-ington.
1860	......	......	......	......	......	......	......	......	......
1861	......	......	......	......	......	......	......	......	6.9
1862	......	......	......	......	......	......	......	......	10.3
1863	......	......	......	......	......	......	......	......	11.0
1864	......	......	......	......	......	......	6.6	......	19.8
1865	......	......	......	......	......	......	3.9	......	0.7
1866	......	......	......	......	......	......	......	......	......
1867	......	......	......	......	......	......	12.6	......	7.7
1868	5.2	......	......	......	......	......	......	......	13.6
1869	10.8	......	......	11.3	......	......	13.8	......	9.7
1870	6.7	......	......	......	......	......	2.8	......	3.6
1871	—4.2	......	......	14.1	......	......	6.1	......	8.4
1872	1.5	......	......	......	......	......	4.2	......	5.3
1873	1.9	......	......	......	......	......	6.1	......	7.0
1874	5.8	......	......	......	8.5	......	7.2	......	9.7
1875	15.2	......	......	......	13.6	—10.2	31.6	5.8	4.9
1876	3.0	—1.7	......	......	6.6	2.5	—3.7	8.8	10.5
1877	2.5	0.9	......	......	4.9	—20.8	4.7	6.8	4.5
1878	7.1	3.9	......	......	7.9	0.0	5.5	7.1	4.6
1879	5.5	2.9	0.0	......	11.0	12.5	7.0	6.9	7.8
1880	5.5	3.1	6.0	......	14.9	8.2	10.5	7.7	11.7
1881	4.9	4.8	6.0	......	6.8	10.0	7.3	6.2	7.0
1882	3.6	5.9	2.0	......	4.2	8.7	12.9	4.6	8.9
1883	5.0	0.0	7.0	......	2.3	0.0	—3.3	6.7	—2.0
1884	1.4	6.2	2.0	......	0.0	0.0	4.9	3.8	5.3
1885	6.4	5.1	3.9	......	10.4	11.1	7.6	10.4	6.9
1886	6.3	3.1	4.4	......	7.1	—14.3	6.4	6.2	11.3
1887	3.2	4.8	0.6	4.9	2.5	0.0	2.5	1.4	5.2
1888	5.3	5.2	3.5	8.2	5.1	0.0	6.2	6.7	7.3
1889	4.4	7.1	2.1	4.5	5.6	0.0	4.5	6.1	2.7
1890	0.2	8.0	0.0	4.8	2.7	0.0	5.3	2.0	5.8
1891	4.9	5.4	7.1	6.5	6.8	0.0	4.7	6.3	4.3
1892	4.2	4.0	4.3	6.1	5.1	5.0	4.1	4.7	4.9
1893	1.7	—1.1	5.5	3.7	8.0	5.1	2.2	1.2	—2.2
1894	5.8	11.9	5.9	5.7	5.2	23.5	9.5	7.2	2.7
1895	4.4	—0.5	4.6	5.4	4.5	0.0	5.5	3.4	—0.3
1896	3.9	5.7	5.4	4.7	4.8	0.0	5.2	3.9	0.6
1897	6.6	9.7	6.6	4.7	8.1	0.5	6.0	9.5	6.4
1898	9.3	12.2	6.0	6.8	8.0	0.0	7.1	10.6	1.3
1899	5.2	5.6	3.8	5.9	5.6	6.0	6.5	6.0	3.8
1900	6.1	6.8	7.3	5.9	6.9	2.8	5.8	5.3	4.5
1901	4.6	4.8	5.6	9.0	6.7	3.4	6.1	4.5	1.8
1902	3.7	19.8	7.7	4.0	2.6	—3.4	5.3	4.5	0.5
1903	—1.8	3.2	1.7	2.8	1.8	0.0	1.8	0.4	0.6
1904	6.7	0.0	6.5	5.0	5.6	9.1	5.5	9.9	3.7

If the amount of the investment fluctuation for bonds and stocks were given, it would show how sensitive the value of these securities is to the business conditions in the country. For a period a company makes a gain from increase in values and from the sale of securities, then for a year or more there are losses. The gains from the fluctuation have exceeded the losses, for the decreasing rate of interest has caused the long-time securities owned by the companies to appreciate. The result is that the rate of earning power as found in the tables on the average is higher when the investment fluctuation is taken account of than it would be if the fluctuation were neglected. Likewise the rate varies widely from year to year when the investment fluctuation is included.

From 1860–69 the companies whose record extends back that far had annual earning rates on bonds and stocks of over ten per cent. for nearly half the years. A half of the remaining annual rates were above six per cent., the remaining rates being under six per cent. The earning power of bonds did not increase in the seventies, as it did for mortgages. In this decade instead of half the annual earning rates being above ten per cent., as they were in the previous decade, few over one-eighth of them were on that high level. Half of the rates were between six and ten per cent., leaving thirty-five per cent. below six per cent. The eighties

show a more decided drop in the earning rate of bonds and stocks. One-tenth of the rates were above ten per cent., one-third were above six and under ten per cent., and more than one-half of the annual rates were under six per cent. From 1890–99 the rates above ten per cent. were few and were the result of special conditions. The earning rate of bonds and stocks was also falling below six per cent., for now two-thirds of the annual rates were below six per cent. The period since 1899 shows that the tendency to lower rates has been maintained by this class of assets that we are considering. Without the great increase in market values which took place in 1904, few companies would have earned a rate of six per cent. for any year on the bonds and stocks which they possessed.

Thus bonds and stocks have suffered a severe decline in earning power since 1860. In spite of the surplus of increase in market value over decreases in market value which is true of the period as a whole the decline in earning power has been marked.

There has been much discussion as to the advantage of mortgage loans as an investment for life insurance companies compared with bonds and stocks. From the income producing standpoint mortgages so far have had the advantage. If the rates realised by the individual companies on these two classes of assets be compared year by year, it will be found that during the decade

1860–69 bonds and stocks earned a higher annual rate than did mortgage loans twice to the latter's once. In the following decade the situation changed. Mortgages earned a higher rate two times to the bonds and stocks' higher rate once. This superior earning rate kept up in the same proportion with remarkable steadiness during three decades, 1870 to 1899, mortgages making the higher rate two-thirds of the time. In the last five years, bonds and stocks have gained, mortgage loans have had a higher rate of earning power only four times out of seven instead of two out of three times. Whether this shows that bonds and stocks are gaining relatively to mortgage loans is hard to decide. In this short period, there have been two years of remarkable increases in market values, one in 1900 and again in 1904 causing a higher rate of earning power for bonds and stocks during those two years. It does appear that mortgage loans are still yielding higher rates of income than are bonds and stocks of the character possessed by the insurance companies, though they have lost much of the superiority which they possessed during the seventies and the two following decades.

It is thus seen that there has been a serious decline in the rate of earning power of the assets belonging to the life insurance companies in the United States. Of course, this decline in the rate on the insurance assets is simply a reflex of the general fall in the rate of in-

terest since the Civil War. Before discussing the causes of this declining rate or of the increasing rate before the War it will help us to see how far the phenomena in the United States are connected with those of other countries. We would expect Canada to have a similar experience to that of ours, and so it is so far as we have been able to gather the statistics. The rates earned by the assets of Canadian companies since 1880 are as follows:

Year. p. c.	Year. p. c.	Year. p. c.
1880—6.8[1]	1886—6.3	1892—5.5
1881—6.8	1887—6.6	1893—5.4
1882—6.2	1888—5.8	1894—5.4
1883—6.6	1889—5.7	1895—5.2
1884—6.1	1890—5.6	1896—4.7
1885—6.2	1891—5.6	1897—4.7

The Canadian companies have experienced quite the same decline in the rate of earning power as have the companies of the United Sates. The rate earned by the total assets of Australian companies exhibits a similar decline in the same period. At the end of five-year periods, the rate has been.[1]

Year. p. c.	Year. p. c.	Year. p. c.
1880—6.5	1890—6.0	1900—4.6
1885—6.2	1895—5.5	1902—4.6

The Government insurance department of New Zealand made an extremely low rate of interest on the as-

[1] In these rates the profits from the sale of securities have been included. The rates have been taken from a paper by Frank Sanderson, Transactions of the Actuarial Society of Edinburgh, Volume III, Page 178.

sets in 1870 and was able to raise this rate till 1891, since which time there has been a decline from five and four-tenths per cent. to four and four-tenths per cent. in 1902.

So far we have been studying the rates earned by companies in comparatively new countries. Turning to the rates realised by English companies, they are of great interest because England is a country which had realised a high stage of industrial development some three-quarters of a century ago. Statistics of English companies are available for longer periods than are those of other countries. In 1837 forty-six English companies made an average rate of three and six-tenths per cent. The Scottish offices made four and four-tenths per cent. for the same year.[1] After 1837 the statistics of the total assets of a number of companies are not available for some years, but taking the rates made by a representative Scottish office, the Scottish National, somewhat of a gain in rates is noticeable. These rates were

Five years 1845–1580—4.4 p. c.
" " 1860–1865—4.7 p. c.

From 1865 we have many statistics for the English companies' assets, the rates made are as follows: [2]

[1] David Deuchar, Journal of the Institute of Actuaries, Volume 28, Page 450.

[2] The rates for 1866–1869 inclusive are taken from a paper by Mr. A. Hewat, Actuarial Society of Edinburgh, January, 1880.

Year. p.c.	Year. p.c.	Year. p. c.
1866—4.52	1879—4.53	1892—4.14
1867—4.49	1880—4.37	1893—4.09
1868—4.46	1881—4.29	1894—3.92
1869—4.45	1882—4.41	1895—3.96
1870—4.27	1883—4.23	1896—3.85
1871—4.33	1884—4.25	1897—3.88
1872—4.30	1885—4.25	1898—3.81
1873—4.45	1886—4.17	1899—3.77
1874—4.52	1887—4.20	1900—3.78
1875—4.64	1888—4.11	1901—3.71
1876—4.43	1889—4.02	1902—3.67
1877—4.46	1890—4.00	
1878—4.38	1891—4.16	

The rate realised in 1902 by the English companies was still above that earned in 1837, but it was lower by almost one per cent. than the rate of 1866. Between 1837 and 1866 the rate had increased, and the level of 1866 was maintained for twenty years. Since 1885 the rate of income has been declining continuously.

The Gotha Mutual Life Insurance Company, one of the largest in Germany in the decade 1829–39 made an average rate of 3.94 per cent. on its mean assets. In the following decade it made 3.71 per cent. During the years 1852–6, the rate was 3.90, showing an upward trend again. During 1874 the company made 4.83 per

The basis used is mean assets, no other refinements are used in the method. From 1870 to 1896 inclusive the rates are taken from a table compiled by Mr. Joseph Burns, Journal of the Institute of Actuaries, Volume 34, Page 495. The rates are for the assets of twelve leading companies, computed on mean assets and profit and loss on investments have been included. The rates since 1896 are for the assets of all the companies and are computed by the writer on mean assets, only interest earned being considered.

cent. on its assets showing a great increase over the previous years. However, this was the highest rate reached and in 1885 the annual rate had fallen to 4.22 per cent. Since which time the rate has further declined to 3.87 per cent. in 1902.

Thus it is seen that there have been certain world-wide movements in the rate of interest. For thirty years approaching 1870 the tendency of the rates was upward. In the preceding tables the rates were not found for all the countries before 1870, but the examination of the interest rate realised by individual companies will show that in general in old and in new countries, there was this gradual upward tendency. Since that time there has been a world-wide decline in the rate. Therefore the decline in the rate earned by American companies is not to be studied as an isolated fact but in the light of the previous opposite tendency and the universal movement.

It is not the purpose here to enter into an extended discussion of the conditions determining the rate of interest such as would be necessary if we were to understand the fluctuations which have taken place in that rate. The formulation of the agio theory of interest, namely, that interest is the premium which is paid for the use of present goods in preference over future goods has aided much in explaining the changes in the rate of that premium. Accepting the agio theory of in-

terest, some of the leading causes of the fluctuation which we have already noticed will be indicated.

In the first place, the rate of interest is high when men look hopefully to the future and low when the future does not hold out such bright prospects. From 1846 to 1870 there is reason to believe that, except for the slight shock of the crisis in 1857, men looked with strong faith to what the future held forth. It was a period in which the development of the North and West went on apace. All sorts of investments were made which did not pay at first, but which it was trusted that the future would bring sufficient development to make profitable. During the seventies, there was one of the most severe and prolonged depressions which the country has ever experienced. How far this caused men to be more cautious of the future is not known. Such effects cannot be measured, but there was scarcely a business which did not suffer intensely during that period, and certain it is that since then there has been a more sane development in most businesses. This is shown in our own field by the fact that there are not as many life insurance companies in the United States even now thirty-five years later as there were in 1870–1. However, it is merely a suggestion that the rise and fall in the rate of interest has been to some degree the result of this psychical change.

The Civil War destroyed a tremendous amount of

capital. Whatever lessens the amount of present capital goods makes present skimping necessary to restore the waste and get back the normal income after that waste is repaired. Undoubtedly the war was one of the influences which made the rate of interest high in the United States during the sixties. Not only was the rate in this country affected, but as the burden of that war was to an extent borne temporarily by other countries through the purchase of American securities, it meant a higher rate of interest the world over. Since the Civil War until recently there have not been any very destructive wars. Capital has increased rapidly, and as a result the premium on the relatively abundant present goods has become smaller.

Again it has been shown conclusively that there is a close connection between prices and the rate of interest.[1] With rising prices we find a high interest rate, with falling prices a low rate of interest. It is well known that the gold discoveries of 1848-50 in California and Australia caused prices to rise in all countries. This general appreciation of commodities in values may explain why insurance companies the world over were enabled to increase the earning rate of their assets after 1850 for twenty or twenty-five years. Following the early seventies, there was a decline in

[1] For a discussion of the important connection between price and the interest rate see Prof. Fisher's "Appreciation and Interest." Publication of the American Economic Association, 1896.

prices which lasted until the discoveries of gold in Alaska and South Africa. Along with this decline in the price level there came as a result a decline in the interest rate.

There have been other elements entering into the situation in the United States to cause a decline in the rate of earnings. Since 1865, the United States has become far more homogeneous. It is no longer possible for the general rate of interest in one portion of the country to be three to five per cent. higher than it is in other portions of the country at the same time. Europe has come to know American securities better, and with this knowledge have come greater investments of European capital in the United States. This has tended to keep the rate up in Europe, but the rate has fallen more rapidly in the United States because of the influx of foreign capital.

The all-important question remains, has the decline in the rate of interest been arrested? There are some indications that the low level has been reached. Large amounts of gold are being added to the existing stock each year, and prices have been rising steadily for some years. It is not contended that a change in prices will change the interest rate under all conditions. But if prices continue to rise, and it looks as if they will, the decline in the interest rate ought to be succeeded by a rise. Much depends on how long prices continue

to rise and on how clearly investors realize the more or less permanent change in the trend of the movement.

The price level is a condition over which the officials of insurance companies have no control. There are conditions, however, of which they should take advantage. The decline in the rate of earnings since three decades ago has been lessened by keeping a larger proportion of the assets invested. Other methods to secure a good rate have been adopted, and some of the companies have succeeded in maintaining remarkably high rates of interest. Of other companies it is doubtful whether all that could be done to secure better rates has been accomplished. Some managements have directed their attention mainly to getting new business as if the only function of a life insurance company were to get insurance in force. Granting that such is its chief function, it should be the object, at least of a mutual company, to make its insurance cost the members the least possible. Yet tremendous energies and large amounts of money have been spent in securing new business and comparatively little attention has been given to securing the highest rates of earning on the assets.

It is not the intention to point out any securities which a life company should select, nor indeed any class of securities. It is a fact, as shown by the statistics of this chapter, that some companies are earning, in some cases, more than one per cent. more than are other com-

panies. When we examined the classes of assets in the previous chapter, it was seen that some companies had assets largely of one character, and other companies had assets of a different class. Those which have large mortgage holdings are on the whole making the best rate of interest. It is not urged that all a company's funds, or even a majority portion of them should be invested in mortgage loans, for there are as we have seen certain drawbacks to such loans. What is contended for is that the managers of a company should not be satisfied with the easy method of investing their funds of buying the securities through a brokerage firm. There is no doubt but that the investment of the assets in certain bonds and stocks give the officers of the company doing so a power in the financial world which they would not possess if the funds were invested in other ways, but it is hardly necessary to say that from the policy-holders' standpoint such power is of slight importance. What they desire is high earning power.

If the earning rate of the assets is to be kept at the height it should be, the investment department must be conducted with the same energy that is evident in other departments of the company. Good investments must be sought with the same zeal that policy-holders are sought after. Investments must be found which combine a high element of safety with a high element of earning power.

CHAPTER IV.

THE COST OF INVESTMENTS.

In the preceding chapter the rate of earning power of various classes of assets was found. It was said then that in finding the rates no allowance had been made for any expenses connected with the investments, nor for caring for them and collecting the interest after they were made. But it is obvious that these expenses should be considered in a study of the earning power of the assets. We saw that some companies were making a higher rate of earnings than were other companies, and that certain classes of assets had on the whole paid better than had other assets. The question arises as to whether these higher rates may not be affected by a higher cost of investment, thus neutralising the good showing which certain companies and certain classes of assets have made. It is the purpose of the present chapter to study the investment costs.

There are serious difficulties in such a study. In the first place, it is impossible for a company even if it goes seriously to the task to find out what are its investment expenses. What expenditures should be included under investment costs? Some very readily fall

into the category. Such are taxes of real estate owned by the company, repairs and other expenses connected with the ownership of real estate and taxes on other assets belonging to the company. If the company has an investment department and officials and employees in that department whose time is devoted exclusively or practically so to the investment, to the collection of interest and kindred duties regarding the assets, the expenses of this department may also be readily classified as investment expenses. Again, companies have investment agencies in various localities. These agencies have nothing to do with getting insurance in force, but are concerned only with the investment side of the business. The cost of maintaining these agencies should be included under investment expenses. Such expenditures are easily classified, but what are we to do about the division of the salaries of the executive officers whose duties involve jurisdiction over all departments of the company?

The time was when the officials of a life insurance company were chosen and paid large salaries because of their ability to get insurance in force. Such men are ever needed by a small company. Under this condition the larger part of their salaries can be included under the cost of getting business. However, when a company becomes the possessor of as large assets as some control today, the responsibility arising from the safe invest-

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ment of these assets at a satisfactory rate of interest is so great that men with financial genius are required for the highest offices of a company. Are the salaries of such positions to be considered as investment costs? The objection to so doing lies in the fact that no company has yet reached the point of possessing assets so large that it has given up the competition for new business. Rather the opposite tendency has prevailed. With large assets, the pursuit of new business has been pushed with vigor, and the managing of the agency force has continued to make large demands upon the executive officials of the companies. Therefore it is impossible to say how much of certain large home office expenses should be considered as investment costs.

Despite the impossibility of apportioning the expenses of a life insurance company to investments on the one hand and to insurance on the other, we find that such an attempt has been made. In 1897, the Commissioner of Insurance of Connecticut and those of several other states compelled the companies to make a gain and loss exhibit. This exhibit showed among other facts the investment expenses of each company during the preceding year. Since then, this exhibit has been included in the annual reports of some state, so that for the last nine years we do have certain statistics regarding the expenses of the investments. In looking over these statistics one is immediately struck with their

incompleteness, and in many instances evident worthlessness as showing the real cost of making and caring for the investments. A case in point is found in the exhibits of the Equitable. No other investment expenses other than taxes, repairs and other expenses connected with the real estate owned by the company is reported for five years, then for one year a half million dollars is reported as the investment expense. Then for the next year, no such expense is reported. The exhibits of the Aetna, Berkshire, John Hancock, and a half dozen others show similar discrepancies regarding the investment expenses. Thus twelve of the twenty-nine companies which we are studying made reports which for some of the years are on the face of them incorrect as showing the total expense arising from the investments.

Inaccurate as the exhibits are known to be, it has been considered worth while to compile the following tables. With the expenses divided into three classes, taxes on real estate, repairs on real estate, and other investment expenses, it is possible to distinguish many of the amounts which are too small. Besides with a number of companies, the reports do show something. In these tables, the material has been gathered from the gain and loss exhibits given in the Connecticut Insurance Reports from 1896 to 1901 and for the last three years from the Wisconsin and Minnesota reports,

as the Connecticut reports no longer contain the gain and loss exhibit.

It is impossible to get complete statistics for each of the twenty-nine companies, as not all of them during the nine years were doing business in a state which required the gain and loss exhibit.

RATIO OF TOTAL INVESTMENT EXPENSES TO TOTAL ASSETS.

Year.	Aetna.	Berkshire.	Connecticut Mutual.	Equitable.	Germania.	Home.	John Hancock.	Manhattan.	Massachusetts Mutual.	Metropolitan.
1896	.58	.21	.62	.48	.41	.78	.91	.67	.28	.54
1897	.06	.20	.85	.37	.37	.49	.97	.58	.39	1.11
1898	.06	.30	.88	.31	.39	.51	.67	.52	.38	.42
1899	.09	.41	.74	.35	.51	.53	.55	.67	.36	.46
1900	.23	.38	.77	.31	.49	.55	.49	.75	.33	.59
1901	.17	.49	.77	.42	.48	.49	.46	.86	.30	.58
1902	.17	......	.73	.27	.54	.71	.29	.84	.28	.51
1903	.16	......	.84	.29	.57	.68	.34	.92	.27	.54
1904	.15	......	.84	.28	.53	.55	.. ..	.91	.28	.51

RATIO OF TOTAL INVESTMENT EXPENSES TO TOTAL ASSETS.

Year.	Michigan Mutual.	Mutual.	Mutual Benefit.	National.	New England.	New York.	Northwestern.	Pacific.	Penn.	Phœnix.
1896	......	.45	.35	.36	.33	.22	.62	......	.60	.36
1897	.....	.34	.53	.57	.30	.23	.32	......	.61	.33
1898	......	.33	.38	.99	.34	.24	.31	......	.98	.43
1899	......	.33	.42	.84	.33	.22	.35	......	.44	.56
1900	......	.35	.51	.80	.47	.29	.35	......	.97	.44
1901	......	.46	.50	.69	.44	.41	.28	......	.69	.34
1902	.49	.38	.51	.61	.44	.63	.25	.28	.67	.30
1903	.51	.36	.49	.49	.45	.36	.26	.75	.62	.26
1904	.49	.34	.49	.42	.44	.38	.22	.44	.61	.23

RATIO OF TOTAL INVESTMENT EXPENSES TO TOTAL ASSETS.

Year.	Provident Life and Trust.	Provident Savings.	Prudential.	State.	Travelers'.	Union Central.	Union Mutual.	United States.	Washington.
1896	.29	.66	1.76	.40	3.75	.61	......	.63	.13
1897	.33	.59	.55	.70	.68	.52	.31	.50	.44
1898	.31	.50	.53	.36	.87	.74	.28	.48	.44
1899	.20	.52	.57	.39	.59	.86	.25	.51	.61
1900	.27	.40	.74	.50	.70	.93	.33	.33	.68
1901	.21	.40	.82	.42	.70	.67	.34	.44	1.25
1902	.22	2.12	.76	.35	.77	.77	.38	.51	1.30
1903	......	2.55	.79	.36	.51	.58	.35	.54	1.02
1904	......	2.77	.53	.....	.41	.59	.40	.....	1.16

The tables show that the cost of caring for the investments should not be neglected in studying the earning power of the assets. One company for one year had an investment expense equal to more than three per cent. of its mean assets for that year. Three of the rates per cent. of cost to mean assets as shown by the tables were between two and three per cent., six have been during the nine years above one per cent. but below two, and twenty-three of the annual expense rates have been between three-quarters of one per cent. and one per cent. The deduction of these amounts from the rate of earning power makes a serious change in that rate. In fact the tables show that if the figures for those years in which the companies reported no other investment expense than that connected with real estate be thrown out it is found that ninety-four of the annual rates of investment expense have been above one-half of one per

cent. and one hundred and two below one-half of one per cent. In other words, from the rate of earnings for the total assets found in the preceding chapter must be subtracted at least one-half of one per cent. to get the net earning rate.

An investment expense of five-tenths per cent. of the investment is high. In seeking a cause for this large cost a slight investigation is sufficient to show that with most companies real estate absolutely owned by them is responsible for a considerable portion of the total investment expense. There are fifteen companies whose investment expenses during the nine years have averaged more than five-tenths per cent. of mean assets. If these fifteen are examined as to the amounts of real estate they own, it is found that ten of them own large amounts, an amount in each case forming a larger percentage of their total assets than seven per cent. the average for all the companies. Indeed every company, except three, which had relatively large real estate holdings during the period under study, has had an expense ratio above five-tenths of one per cent. The close relation between large amounts of real estate and a high investment expense is thus seen. So important is this relation that it has been thought best to make separate tables showing the real estate expenses and then consider the expenses attached to other classes of investments.

RATIO OF TAXES, REPAIRS AND OTHER EXPENSES ON REAL ESTATE TO MEAN AMOUNT OF REAL ESTATE.

	1896	1900	1904
Aetna	[1] 6.1	13.7	6.5
Berkshire	3.3	4.5	....
Connecticut Mutual	3.6	3.6	4.0
Equitable	2.4	2.4	2.5
Germania	3.0	3.7	4.3
Home	2.2	2.9	2.9
John Hancock	3.4	3.9	....
Manhattan	2.1	2.5	2.5
Massachusetts	2.5	5.0	2.1
Metropolitan	1.9	2.5	2.8
Michigan	....	....	5.3
Mutual Benefit	2.9	3.8	3.5
Mutual N. Y.	2.9	3.2	2.7
National	5.0	5.5	5.0
New England	3.3	4.6	4.9
New York	1.9	2.5	3.1
Northwestern	5.1	8.1	7.5
Pacific	....	....	3.5
Penn	2.0	6.3	5.6
Phœnix	4.1	3.7	2.8
Provident Life and Trust	1.6	2.0	....
Provident Savings	5.0	2.7	7.7
Prudential	4.1	3.8	3.5
State	4.1	2.7	....
Travelers'	29.9	8.1	14.2
Union Central	3.5	2.4	3.7
Union Mutual	....	1.5	2.4
United States	1.9	3.3	....
Washington	1.6	1.6	2.8

We have already seen how unfavourably the gross earnings from real estate compare with the earnings of other classes of assets. It was pointed out in the study of the gross earning power, how the rate from real estate had increased during the last ten years, but when

[1] Figures are for 1897.

the deduction for expenses is made from the gross earnings it is seen how very little real estate actually returns in net income. In the preceding tables only seven of the annual rates of expense to mean value of real estate are below two per cent. Seventeen annual rates are above five per cent., and the average during the nine years for all the companies is nearly four per cent. of the value for each year. So heavy is the expense connected with real estate such as life insurance companies possess that in the three years selected for the above table, the expenses exceeded the rents received from the property twenty-two times.

It is unfortunate that we cannot get as good an indication of the expenses attending the investment of other classes of assets as we have here obtained for real estate. It is harder to find such costs than it is to find the total investment expenses of a company, and the extreme difficulty in finding such expenses has been indicated. The best that we can do in learning the expenses connected with particular classes of assets is to find the expense for all assets excluding real estate and then see if any relation can be traced between the expense ratio of the companies and the specific classes of assets which those companies largely possess. The following table shows the rate per cent. of expenses to total assets, excluding in each item the real estate.

PER CENT. OF INVESTMENT EXPENSES OTHER THAN REAL ESTATE TO MEAN ASSETS MINUS REAL ESTATE.

	1896	1900	1904
Aetna	....	0.10	0.11
Connecticut Mutual	0.17	0.14	0.20
Equitable	....	....	0.04
Germania	....	....	0.16
Home	0.45	0.20	0.28
John Hancock	0.42	0.13	0.14[2]
Manhattan	0.06	0.16	0.18
Massachusetts	0.21	0.23	0.23
Metropolitan	0.02	0.16	0.15
Michigan	....	....	0.26
Mutual Benefit	0.26	0.36	0.35
Mutual of New York	0.19	0.12	0.13
National	....	....	0.20
New England	....	....	0.13
New York	0.06	0.13	0.26
Northwestern	0.53	0.09	0.08
Pacific	....	....	0.23
Penn	0.50	0.61	0.37
Phœnix	....	0.23	0.13
Provident Life and Trust	0.31	0.13	0.20[3]
Provident Savings	....	....	0.15
Prudential	....	....	0.15[2]
State	....	0.13	0.13[1]
Travelers'	....	....	0.12
Union Central	0.51	0.87	0.55
Union Mutual	0.44	0.08	0.14
United States	0.44	0.08	0.14[1]
Washington	....	0.18	....

Ten of the companies in 1904 reported an investment expense connected with mortgages, bonds, stocks, policy loans, etc., all the assets except real estate, equal to one-

[1] Business of 1903.
[2] Business of 1901.
[3] Business of 1903.

fifth of one per cent. on the mean value of the assets. Seventeen others reported a less percentage, in several cases an amount so small that it does not represent the real investment expense. We saw in an earlier chapter that there are five companies which have practically half or more of their assets invested in real estate loans. The Union Central is one which has practically all its assets in this form. The above table shows the Union Central reporting the highest rate per cent. of investment expenses. The Mutual Benefit, the other large company which has kept about one-half of its assets invested in mortgage loans, stands third in the list of investment expense. The Michigan Mutual stands fourth. The average expense for the five companies having relatively large mortgage holdings is 0.38 of one per cent.

There are eight companies which have more than one-half of their assets invested in bonds and stocks. These eight reported an average investment expense of 0.14 of one per cent. This makes a difference of 0.22 of one per cent. in the rate of investment expense between those companies which as one extreme have mostly mortgages and those which have a large amount of bonds and stocks. If we consider only two companies, the Union Central with more than eighty per cent. of its assets in mortgage loans, and the New York Life with more than seventy per cent. of its funds in bonds about

the same difference in expense of investment will be found as by taking the average of several companies. Both of these companies in 1904 reported liberal amounts as investment expenses. The difference for that year in the rate of the two companies is twenty-nine hundredths of one per cent. Roughly measured then there is a difference of about one-quarter of one per cent. in the expense of investing a large percentage of the assets in real estate loans compared with the expense of similar large investments in bonds and stocks.

The expense of investing the other classes of assets cannot even be roughly measured from the statistics given in the official annual reports. Returning to the total investment expense, we find that the twenty-nine companies which we have been considering had as a whole an expense for investments in 1904, a rate of thirty-six hundredths of one per cent. of their total mean assets of that year. In 1900, the companies transacting business in Connecticut had an expense ratio of forty-three hundredths of one per cent. In 1903, the forty companies reporting to the Minnesota department of insurance had an expense equal to forty-one hundredths of one per cent. of total assets. As we pointed out when examining the rates of the individual companies forty-hundredths of one per cent. is a high investment expense ratio. Especially is this true, if, as

has been stated,[1] the actual expenses involved in the handling of the investments are in excess of the amounts reported to the insurance departments to the extent of at least one-quarter of one per cent.

We can get some idea of what is an economical investment expense ratio by a study of savings banks. At the end of 1904 the savings banks in the State of New York had assets amounting to one and one-fourth billion dollars. This amount was held by one hundred and twenty-eight banks, and the salary expenses of these institutions for all purposes amounted to only seventeen-hundredths of one per cent. of the total assets. The entire expense of the banks for salaries, taxes, etc., amounted to twenty-nine hundredths of one per cent. Even with this small ratio, these banks had forty-three per cent. of their assets invested in mortgage loans, thirty-four per cent. in public bonds, and only fourteen per cent. in railroad bonds, the least expensive to handle, and of which the insurance companies possess so largely.

The savings banks in Massachusetts since 1884 have not had an expense ratio outside of taxes for any year greater than one-fourth of one per cent. of the total assets held by them. The number of institutions has averaged more than one hundred and eighty. Thus

[1] D. H. Wells Transactions of the Actuarial Society of America Volume 6, Pages 335-6.

with average assets of less than two million dollars at the beginning of the period and less than three and one-half million at the present time, with forty per cent. on the average invested in mortgage loans, these institutions have been able to perform all the functions of a savings bank, such as receiving deposits, investing the assets, paying the dividends, all this with an expense ratio of about half the rate which the insurance companies incur for investment expenses alone.

The low expense ratio of the savings banks can be explained to some extent by the small amount of real estate which they hold. We have seen that the insurance companies with large assets have five per cent. at least of their total funds tied up in real estate for business purposes. The Massachusetts savings banks, despite the larger number of them, and their smaller assets, have less than one per cent. of their funds invested in real estate for business purposes, and little more than one-half of one per cent. more in real estate acquired through foreclosure.

If the insurance companies could dispose of much of their real estate, and thus lessen the expenses connected with it, the investment expense ratio would be lessened. Outside of real estate, the insurance companies, so far as the official reports indicate, have not a heavy investment expense. In fact a higher expense might be justified by a higher rate of earning power. The

Union Central with an earning rate of over six per cent. cannot be reproached for an investment expense of one-half of one per cent. Doubtless, with other companies, a larger expense for investment, if incurred along different lines than at present, would be more than made up by the higher rate of earning power which could be secured.

CHAPTER V.

FAILURES OF LIFE INSURANCE COMPANIES.

A study of life insurance companies which have failed is of value in a study of the investments from two points of view. In the first place, the history of these companies offers many lessons to present managements as to what investments should or should not be made. In the second place, the legislator by studying the investment history of the insolvent companies of the past can learn how far a repetition of those failures can be avoided by legal regulations.

Insurance failures, as will be seen from a study of the individual companies, have been only partly due to the investment side of the business. No matter how well the investments are made, if the company is reckless in its acceptance of risks which leads to a death rate much greater than that expected from the mortality table it will fail. Then too, a company is always exposed to the dishonesty or mismanagement on the part of the officials controlling the company. Mismanagement often leads to a high expense to get new business, exorbitant salaries and similar expenses which bring

the company to a condition of insolvency, and dishonest officials may exploit the assets of the company they control for their own private advantage. Again investments may be reasonably well made, but a financial crisis may upset values to such an extent that the assets depreciate and become less than liabilities. So far as failures have been due to excessive mortality, or to a ruinous expense ratio, this chapter will not be particularly concerned, but where they have been due to mismanagement of the assets, poor investments, or to financial crises, some attention will be devoted to them.

Every life insurance company which commenced business before 1840, with one exception, failed or changed the character of its business. A number of the companies which were chartered during that period did scarcely more than organise and then wound up their affairs. Those which changed the character of their business subsequently paid off the few insurance claims which they had assumed as the policies matured. A few failed outright, but they had done so small a business that barely a record of their names is left. Failures of life insurance companies numbered one in 1836, two in 1840, one in 1848, and two again in the following year.[1]

In 1853, the Eagle Life and Health of Jersey City

[1] The United States Insurance Gazette 1869, Volume XXX, Page 21.

failed. It had been organised in 1847 for the purpose of writing health insurance, but frauds on the part of the applicants became so numerous that the scheme was abandoned. A few years later the Kentucky Mutual, one of the first companies in the West, became insolvent. This company offered insurance at rates only three-fourths as high as the ordinary rates, and after six years of experience, its deficiencies became so great that it was compelled to wind up its business.

In 1857, occurred one of the most notable failures of the day. The Ohio Life and Trust Company, chartered twenty years earlier, had built up an extensive business and had accumulated considerable assets. These had been used largely in the construction of railroads which was then going on rapidly. When the panic of 1857 set in, the Ohio Life and Trust Company was almost the first corporation to become insolvent.

During the next ten years, there were no failures of life insurance companies worth mentioning. Then came a period during which company after company failed. In order to understand these numerous failures, it is necessary to know something of the growth of life insurance in the ten years preceding 1870. In the forties, a few companies for the first time were established on a firm basis. There were serious defects in their methods of carrying on the business, but the companies managed to live, and with experience the weak-

nesses were discovered and remedied. From 1850–60 a number more companies were organised. The possibilities of the system had been proven and life insurance became an established business. In this decade there was a genuinely healthy growth. Able men were attracted to the business, as is evidenced by the fact that no less than twenty-one of the most prominent companies of to-day were organised in the two decades prior to 1861.

With the outbreak of the Civil War, there were grave doubts among the managers of the companies as to its effect upon their business. A large territory was cut off from communication, and thousands of men were going into a hazardous occupation. The result was not what was expected. Life insurance business prospered as it had never prospered before. Just why it suddenly became so popular is a matter of much conjecture. Insurance is an institution of real value, but it has never forced its claims upon people so rapidly as it did for a few years just before and immediately after the close of the Civil War. However what may have been the cause of the popularity of life insurance at that time, it made the companies which were in the field exceedingly prosperous.

The result was exactly the same as has been found in other lines of business in this country. No business can show unwonted prosperity without attracting a flood

of competitors. This took place in life insurance during the late sixties. Adventurers, speculators, and men who had failed in other enterprises, seeing the success of the score of companies already in the field, hastened to form new ones. In the closing year of the Civil War nine new companies were organised. In the following year thirteen more were brought into the field, thus almost doubling in the short space of two years the number of life insurance corporations. Still greater growth came, no less than nineteen companies being organised in 1867, and the record of that year was duplicated in the next. The following year saw the end of the movement, but not until eleven more companies had been organised.

Thirty years earlier life insurance had been represented by one or two feeble companies. At the close of 1869, one hundred and ten were competing for business. That is more companies than are existing in the United States even to-day, although the business has increased many fold.

Even if the country as a whole had not soon suffered one of the most severe depressions it has ever experienced, there would probably have been trouble in the life insurance business. The growth in the number of companies had been too rapid, and too many of the new companies were managed by incapable men. Many of the companies had been brought into existence

for the sole purpose of furnishing lucrative positions to the men who organised them. Most of the new managers knew scarcely anything of the principles of life insurance, and even in the cases where honest management was desired, the business was often conducted unwisely. In some instances honesty was never intended, and with these companies mismanagement was the rule. The organisers, whether their intentions were honest or fraudulent, secured for the new companies imposing boards of directors and trustees made up of men prominent in the financial or political world. These men through solicitation allowed their names to be connected with the new companies, but they took little interest in the management of them.

The results of the ignorance and mismanagement on the part of the officials and the lack of interest on the part of directing boards were soon forthcoming. In 1868, even while new companies were still being organised, three failed, one insured in another company which subsequently failed, and one was closed at the suit of the stockholders, and in 1870 these were followed by seven more. There was a slight improvement in 1871 when but two companies were forced out of existence, but the disaster was but begun. In 1872, thirteen companies failed or reinsured in companies which failed. Thus before the financial depression which affected all lines of business had begun thirty

life insurance corporations had failed. When the general hard times did set in, and failures in all lines of business became frequent, the rate of insurance failures was accelerated. In 1873 fourteen life companies were placed in the hands of receivers, in 1874 four failed, in 1875 nine, and in the succeeding year a similar number became insolvent. Six companies went to the wall in 1877, making a total of seventy-one life insurance corporations which had failed in ten years.

The weaker companies had been weeded out and failures became less frequent. The year 1878 recorded but a single insolvent company, and 1879 and 1880 each had but two. Between 1880 and 1890 a few more companies, rather prominent ones, failed mostly as a result of conditions arising in the previous decade. Since 1890 no company of any significance has become insolvent. In all since the Civil War, a few over eighty companies have gone out of existence through receivership proceedings, in addition to fourteen which have passed out by the more creditable process of reinsurance in companies which have survived.

It would be of little value to examine the history of all of these companies which have failed. Many of them were too small to have any importance individually, and their history is tediously similar. Nearly all those companies which were organised between 1865 and 1869 failed before 1875. Their history means little in a

study of investments, for most of them never accumulated a million dollars of assets. Organised by speculators and managed by incapable men, they did not fail because of any epidemic among the policy-holders, or because of a financial crisis, but because there was no room for so many companies, and the weakest were forced out of existence. The causes of the popularity of insurance during the later war period had disappeared, the great profits from insuring had not materialised to the policy-holders, and the amount of insurance in force began to decline with even some of the strongest companies as early as 1868. Hence it was not strange that the young companies, mismanaged, with a high expense ratio, and with salary lists rivaling the larger companies became insolvent.

The year 1875 marks the beginning of a number of important failures. Certain companies with considerable assets had showed signs of weakness and with the continued hard times began to become insolvent. In the history of nearly every one of these larger failures, something of interest from the investment standpoint can be gained.

The first large company to succumb was the North America Life of New York. In previous years the officers of the company had loaned practically all its funds on real estate security at what proved to be a speculative valuation. This real estate was all located

in New York or adjacent to New York city, but this did not prevent a depreciation in its value so great that the North America had to foreclose its loans at such a loss in value and in revenue as to cause its insolvency.

In October of the following year the Continental of New York was closed at the suit of a stockholder. This company had been organised in 1865 and had made a rapid growth but one which had been dearly purchased. This kept assets dangerously near to liabilities, and when mismanagement of the investments brought its certain results, the company was compelled to cease business. Its particular investment ills were a costly home office building, mortgage loans which had brought in but one and one-half per cent. interest on the investment since 1871, collateral loans on the security of its own stock, and wrong relations with banks which the insurance company controlled. As a result, its assets, which had been valued at six million dollars, shrunk to two and one-half millions when subjected to the scrutiny of the receiver.

In the same year, the Security Life and Annuity, also of New York, was closed by the Attorney-General. In this case failure was due almost entirely to the insurance side of the business and not to the investments. Risks had been accepted which ought to have been rejected, new business ceased, outgo became larger than income, and the company was forced to realise on its

assets at a time when such a transaction meant a ruinous loss.

In 1877, the Universal became insolvent, being the fourth large company in New York to fail within a few years. Its failure was due to causes very similar to those affecting the North America. In 1875, the Universal reported four and one-half million dollars of assets, two millions of which consisted of mortgage loans, and no real estate whatever was owned. A year and a half later it had only a million dollars in mortgages and real estate to more than a million dollars. In eighteen months, the company had been forced to foreclose more than one-half of its loans on real estate, and the consequent loss marked the end of its career.

The New Jersey Mutual's history offers an interesting lesson to legislators believing in strict legal control of the investments. The charter of this company, which failed in 1877, limited its investments to mortgage loans, United States, state and city bonds, a limitation about as strict as could well be imposed. Yet its officers easily evaded the law, lent the funds in violation of the charter regulations, and exploited the company of its assets about as rapidly as could have been done without any legal regulations whatever. Wrecking of life insurance companies had become a profitable undertaking to shrewd and unprincipled men, and the freedom allowed to the officers of the companies by quiescent

policy-holders and "dummy" boards of directors made such wrecking easily possible in spite of the strictest sort of legal regulations.

The failure of the Life Association of St. Louis should be noticed, because the failure was ascribed to its peculiar system of investment. There was a strong demand forty years ago that reserves should be invested in the state where they originated. The Life Association, responding to this demand, organised state departments of the company. Under this arrangement each department was to invest the reserves on the policies in each state within that state. The result was that the assets were scattered in every state where the company did business. The rate of interest income for a while was exceedingly favourable, but the additional expense and trouble of managing the investments was fatal to the plan. Collections of interest, foreclosures and sales were difficult, and the home office could not direct the investment policy as it should have done. Insecure loans were made, and these, coupled with other weaknesses in the company, produced insolvency.

It is not necessary to dwell long on the failure of the Globe of New York in 1879. The failure of no other company shows more clearly the disastrous effect of an alliance between an insurance company and other corporations where the insurance money is used to help

out the enterprise in which the other corporations are engaged. The President of the Globe was the President of a railroad, and he loaned the money of the insurance company freely to his railroad corporation. The railroad did not succeed and the insurance company was reduced to insolvency.

In the same way, the case of the Piedmont and the Arlington, a Virginia corporation, can be passed over rapidly. Like a number of the defunct New York companies it had loaned extensively on real estate which had later so depreciated in value as to cause the failure of the insurance company.

The Knickerbocker Life, an old company as ages then were, failed in the early eighties. Its failure was due to the utterly reckless system of investment pursued by the Vice-President of the company between 1865 and 1870. He loaned on unsecured notes and on unimproved real estate to such an extent that the company in 1880 had between three and four million dollars of real estate obtained through foreclosure. When the company failed it had practically no other assets than the poor real estate which had been obtained as a result of the almost criminal policy of the management years before.

The next company to fail was one of such consequence that it will be necessary to go more deeply into its history than has been done in the case of other failed

companies. A more exhaustive treatment of this company is justifiable, for every investment manager should know the history of the Charter Oak, the largest insurance company which has ever failed in the United States.

The Charter Oak was organised in 1850, it passed successfully through the difficult early years of a life company, and up to 1875, as an insurance institution, it had been entirely successful. Its death rate had been low, its expenses had been below the average, and it had accumulated assets amounting to thirteen and one-half million dollars. Yet in ten years the Charter Oak was a failure, and its liabilities were paid off at the rate of fifteen cents on the dollar.

In seeking the causes of the failure of the Charter Oak attention must be directed entirely to the investments, for it was through the mismanagement of these that the company became insolvent. Before taking up the particular causes of failure, it is well to note that the charter provisions regulating the investments were strict. Three-fourths of the funds had to be invested either in loans on real estate worth double the amount of the loan, or in bonds of New York, Boston, or of the cities in Connecticut. The remaining fourth could be loaned upon endorsed promissory notes having not more than twelve months to run.[1]

[1] P. H. Woodward, Insurance in Connecticut, Page 82.

The first heavy blow struck the Charter Oak in 1875. For some time the banking firm of Allen, Stephens and Company of New York had been the depositaries of the insurance company. Besides a special account which the Charter Oak had with this banking firm, it kept a cash deposit account as well. In 1874 the total deposit in the New York bank by the Charter Oak amounted to nearly a million dollars. Restricted by legal regulations in its investment field, the Charter Oak was financing enterprises through the medium of a banking house. In 1875 that banking house failed, owing the Charter Oak its million dollars.[1] In the settlement of the bank's affairs, the Charter Oak got some real estate, some mortgages, and some stock in a silver mining company in Utah. Thus, was the valuable cash asset of the insurance company changed into unrealisable assets.

The Charter Oak might have stood the shock of the bank failure if its other investments had been well made, but they were not. Back in the sixties, the company had erected a magnificent home office building at a cost of eight hundred thousand dollars. As an investment it was a mistake. It never paid the Charter Oak any fair return upon the investment, and was later sold to the Aetna at one-fourth its cost.[2]

Other still more serious mistakes were made in the

[1] Connecticut Insurance Report, 1875, Page 155.
[2] The Insurance Monitor, 1888, Page 232.

management of the investments of the Charter Oak. The President of the Charter Oak originated the project of the Connecticut Valley Railroad and became its President. The railroad was built and the money which could not be secured by selling bonds and stocks was borrowed of the Charter Oak on personal notes. Later these were funded into second mortgage bonds of the railroad. The railroad was not a success and could not pay the interest on the bonds. Therefore to give the railroad business, Charter Oak money was used in building up a factory along the road and a summer hotel at Saybrook. However, the second mortgage bonds still received no interest and the insurance company had only involved itself further by its efforts to make the railroad pay.

Such repeated drains upon the resources of the Charter Oak could not be withstood. From 1875 on, the difficulties of the company increased. Vigorous attempts were made to save it, but they led to worse entanglements. The bonds of the railroad were exchanged for real estate in New York city. Likewise eight hundred thousand dollars in mortgages besides the mortgages on the manufacturing plant and four hundred and fifty thousand dollars in cash were traded for New York realty.[1] By these transactions half of the Charter Oak assets were traded for real estate just be-

[1] The Insurance Spectator, Volume 18, Page 29.

fore a heavy depreciation in the value of that asset took place. As a result, the Charter Oak lost a million and a half dollars in its trade for New York real estate, and a further long step had been taken toward irreparable insolvency.

Reorganisation of the Charter Oak took place several times after the first difficulties in 1875. Finally a supposedly strong man was put in control, but conditions became worse. Confidence is a necessary stock-in-trade of a life insurance company and the Charter Oak possessed none. Lapses and surrenders of policies went on apace, an application for a receiver was made in 1885, and a year later, as if the Charter Oak had not suffered enough already, its President fled to Canada, a defaulter to the amount of two million dollars. The career of the Charter Oak was ended, and a prosperous company had been sacrificed to private greed.

Since the Charter Oak failure two companies of some importance have become insolvent. The Continental of Hartford failed in 1887 as a result of fraudulent management, and in 1890 the American Life of Philadelphia was placed in the hands of a receiver. The history of the latter company is of interest as illustrating the danger to which the assets of a stock life insurance company are exposed. A syndicate obtained control of the majority of the capital stock of the American, and in

two years succeeded in stripping it completely of all its valuable assets.

This short sketch of a few of the failed life insurance companies has not been given to indicate that there are great risks attached to the business. It does show that there is considerable uncertainty in organising a new company, and losses to the men who have furnished the capital have been heavy. The point is that policy-holders have not suffered much. The losses to them through the failure of companies in which they were insured amount to something over thirty-five million dollars. By losses to policy-holders is meant the difference between the actuarial net reserves upon their policies and the sums which were really paid to them when the companies were wound up. Thirty-five millions is not a small amount taken by itself, but it is small when compared with the savings which have been lost in other business enterprises, or when compared with the total funds which have been accumulated by life insurance companies.

It was said that from a study of the failures conclusions of value to the investment manager and to the legislator ought to be reached. What are the lessons taught by the history of the different companies?

One of the most significant facts gleaned from a study of the failures is that it has been a mistake for young companies or companies with small assets to in-

vest in an expensive home office building. It is almost safe to say that whenever a company has made this investment it has suffered greatly from it. The Continental, the American Mutual, the St. Louis Life and the Charter Oak are examples of companies on which the burden of a costly home office rested heavily. At a time when income from investments was needed badly they had a large investment which was producing a negative income.

Again, a lesson of value to all companies is that it has been unsafe to have too large a proportion of the funds invested in any one class of assets. Even mortgage loans, desirable as they usually have been from an income point of view, should not be sought exclusively. Six of the largest failing companies in New York had at their last reports fourteen million dollars invested in real estate and loans on real estate security. Of this amount the receivers realised only thirty-one per cent., showing a depreciation in the value of real estate seemingly impossible.

Perhaps the most important fact for the investment manager to note as a cause of past failures is that life insurance funds cannot be used to help out otherwise unsuccessful enterprises and still have regard for the safety of the insurance interests. There has been in the past, and to some extent at present, a lurking idea that insurance accumulations could be used to finance under-

takings of which private capital might be afraid, and that the officers could loan the insurance money to themselves or to corporations in which they are interested, or to their friends and still not endanger the solvency of the company. It may be possible, but the officers of the Globe, the Atlantic, the Knickerbocker, the Charter Oak, and nearly every other company which has failed, attempted such a use of the funds which they controlled, with the result of bringing ruin to themselves and disappointment to the policy-holders.

The facts of this chapter that should be remembered in the following discussion of legal regulation of the investments and of company management are, first, that after all, the great cause of failure has been dishonesty and fraud; and second, that danger has not resulted particularly from any one class of investments, but that officers have used all investment openings to loot the companies of their funds. Should legal regulations restrict the companies in their investments to mortgage loans and a few other securities? The answer is that just as many managers have used mortgage loans in which to speculate with insurance funds as have used any other investment opening. The fault has been with the morals of the management, and the remedy should be applied in that direction.

CHAPTER VI.

LEGAL REGULATION.

The first control which the states exercised over the business of insurance was through the provisions inserted in the charters of the companies. For a long period in our history all corporations, including insurance, were created by special acts of the legislatures for each individual company, and such regulations could be imposed as the legislators might see fit. The insurance companies chartered in this way were subject to the laws regulating corporations in general, but there were no distinctively insurance laws until 1807.[1] In that year the Massachusetts Legislature passed a resolution requiring corporations engaged in writing insurance to render an account of their affairs to the next General Court. The same State in 1818 enacted that all insurance companies thereafter incorporated were to publish annually certain details of their business, and whenever so directed by the Legislature were to make statements of their affairs to that body and submit to oath concerning such statements. In 1828, the

[1] John A. McCall, The Insurance Times, 1902, Pages 363–4.

New York Legislature enacted that all moneyed corporations afterward created were to make annual reports to the State Comptroller. Thus, curiously enough, these first attempts at regulation of the business of insurance by the states nearly a hundred years ago were directed to securing publicity. The movement thus begun is still going on, with much yet to be achieved.

Massachusetts passed unimportant acts relating to insurance in 1836, 1837, 1838, and in 1844. In 1852 an important measure was passed. The act of 1818 had secured to the Legislature a knowledge of the affairs of the companies incorporated in Massachusetts, but there were many companies from other states and even from abroad doing business in that Commonwealth. Something ought to be known of their condition. To secure this knowledge the State Secretary, Treasurer and the Auditor were constituted a board of insurance commissioners, with authority to examine the returns made by foreign companies doing business in Massachusetts and to require such other information as they might deem proper.[1] This board was continued for three years when it was abolished and the first state department dealing exclusively with insurance matters was organised. The new department was for a while presided over by three commissioners, but subsequently the number was reduced to one.

[1] Chapter 231, Acts of 1852.

At the time of the passage of this act in Massachusetts six other states were requiring companies doing business within their boundaries to make annual reports to some state official, but in all these cases the official was one with other duties such as the treasurer or the state secretary. However, the Massachusetts plan began to be adopted. In 1859, New York created an insurance department. In 1860, twenty of the thirty-three states had enacted laws for the regulation of insurance and in most of these states annual reports from the companies were required, but as yet only the two above mentioned states had insurance departments. The insurance business grew so rapidly during the following years and a mass of laws regulating that business accumulated, so that the necessity of having an official whose time should be devoted exclusively to insurance matters became widely felt. Consequently we find that in 1871, thirteen states had an official designated as the insurance commissioner or superintendent whose sole duty was the administration of the insurance laws.[1] Twenty other states had the work intrusted to various officials, and only seven had no official whose specific duty it was to look after their insurance interests. The plan of having distinct insurance departments has proven most satisfactory, and at

[1] H. P. Olcott, Report of the National Insurance Convention, 1871, Preface.

the present time, twenty-three states have such departments, which are coördinate with the various other state departments, and have but the one branch of business to look after. In addition to these twenty-three, New Jersey has a department of banking and insurance, and Kentucky has an insurance department which is a branch of another department. Practically all the other states have insurance departments, but have no distinct official at their head, some other departmental head being ex-officio insurance commissioner.

We have said that these insurance departments have been created to administer the laws pertaining to the business of insurance. These laws have had for their purpose the protection of legitimate insurance business both from the standpoint of the corporation selling and from that of the man purchasing insurance, mostly the latter. To secure this end laws have been passed securing first publicity and then solvency. To secure solvency standard reserve laws and laws regulating the investment of the assets have been enacted. As this thesis pertains to the investments, we will be concerned with publicity only so far as it is related to the assets, and with laws insuring solvency to the same extent.

Regarding the laws securing publicity of the assets not much need now be said. A statement of the assets and of the securities of which they consisted were early required. Since the establishment of the Mass-

achusetts department in 1855 these statements have been published, showing the amounts invested in mortgages, the amounts invested in real estate, the particular bonds and stocks owned, the collateral loans and the securities on which they have been based, the cash deposits, policy loans, premium notes, accrued interest, etc., and the insurance commissioner has been empowered to investigate the companies to see that these statements of assets have been correct.

The earliest laws regulating the investment of the funds belonging to life insurance corporations dealt with the investment of the capital stock. Reserves upon policies were still a problem of the future. Neither the managers of the companies nor the legislators knew that reserves were necessary when insurance laws were first enacted. The problem then connected with the new corporations was to see that at least a certain amount of the capital stock was paid up and the cash safely invested. In this respect Massachusetts again led the way. In the law of 1836, the Legislature authorised insurance companies to invest such portions of their capital as might be for their interests in the stocks of any corporation established in Massachusetts whose corporate property consisted entirely of real estate, or the companies could invest in the funded debt of any town or city in the State.[1]

[1] Chapter 207, Laws of 1836.

New York, in 1849, enacted a law which for the first time prescribed what investments should be made of the capital stock and fixed the amount of that capital stock.[1] The law forbade any company organised for the purpose of conducting life insurance on the mutual plan from commencing business until a cash capital of $100,000 should have been paid in and actually invested either in bonds of the cities of New York, or bonds of the State of New York, or of the United States, or in mortgages on cultivated farms in New York worth double the amount for which the same was mortgaged. In this first general incorporation act for insurance companies is seen two tendencies which have played a part in much of the laws regulating the investment of insurance companies, one tendency to restrict the investments to extremely safe securities, and the other tendency to keep the assets invested in the state where the company may be located.

In the following year Wisconsin enacted a law prescribing yet narrower limits to the investment of the capital stock. It was either to be invested in United States bonds or in mortgage loans on real estate in Wisconsin.[2] New Jersey in 1852 provided that life insurance companies should have a capital of at least $50,000, half of which must be paid up and invested in

[1] Section 6, Act of April 10, 1849.
[2] Act of February 9, 1850.

bonds of New Jersey cities, or in mortgages on New Jersey real estate before beginning business. Only in one particular was this law more liberal than its predecessors in other states; it allowed bonds of half a dozen leading states to be purchased.[1] Indiana alone of the states which early passed general incorporation acts allowed freedom of investment. In an act of 1852, that State provided that companies should have at least $100,000 of capital stock, half to be paid up and the larger part of the half to be invested in bonds of solvent corporations.[2] Pennsylvania in an act of 1856 left the amount of capital stock unlimited, and it was to be invested as were the other funds of the companies.

Other states did not regulate the investment of the capital stock for several years. In the later sixties, however, there came an avalanche of laws for that purpose. Kentucky and Ohio in 1867 passed laws making legal investments for the capital stock, California, Iowa and Maryland in 1868, Georgia, Illinois, Michigan, Minnesota, and Missouri in 1869, and Kansas and Tennessee in 1870. The provisions of these acts followed in the main the strict provisions of New York and New Jersey, a new feature appearing in the Illinois statute which gave the State Auditor the power to decide upon assets submitted by the companies as good investments

[1] Section 6, Act of March 10, 1852.
[2] Sections 2 and 12, Acts of June 17, 1852.

for the capital,[1] and in Kentucky where the statutes allowed the capital stock to consist of the notes of solvent persons or corporations. The Tennessee Legislature openly attempted to create a market for Tennessee state bonds by inserting in the law a provision compelling the companies to invest one-third of their capital stock in these bonds.[2]

By the end of 1870 eighteen states had laws regulating in some degree the amount of the capital stock of their life insurance companies, and the securities in which that capital stock could be invested. During the next three decades, and especially during the period 1870–80 similar laws were enacted by a number of the other states, so that at the present time, more than half the states have regulations concerning the capital stock and its investment.

If a study is made of the present laws, it is found that those states which had narrow restrictions upon the investment of the capital stock thirty or forty years ago have seen fit to enlarge the field for such investments. Those which formerly allowed wide latitude to the companies have limited the field. For instance Kentucky no longer allows stockholders' personal notes as an investment of the capital stock, and has specific investments which may be made. Maryland has added

[1] Section 1, Act of March 26, 1869.
[2] Section 5, Act of July 11, 1870.

to her formerly narrow list of United States, Maryland and Baltimore bonds, the bonds of any state, or of any city, county or corporation paying interest, and ground rents and mortgages on real estate. Pennsylvania no longer depends upon charter regulations, but now demands $300,000 of capital invested in Pennsylvania mortgages, United States, Pennsylvania, county and city bonds, and ground rents. Tennessee has given up her narrow limitations to Tennessee bonds,[1] and allows the insurance commissioner to decide when capital stock investments are good. The result is that the various laws are much more uniform than formerly, a tendency which will be found true in all branches of insurance legislation.

Summing up shortly the present laws regulating the capital stock of insurance companies, most of the states require a minimum capital of $100,000. All the states which have regulations allow this capital to be invested in United States bonds, and in the bonds of the states where the company is located. In general the capital may be invested in real estate loans, the value of the land mortgaged to be double the amount of the loan, and the real estate to be located in the home state of the company. City and town bonds can be purchased and collateral loans made upon the above securities.

These laws regulating the investment of the capital

[1] Section 13, Insurance Laws of 1903.

stock are strict, and they have exercised an important influence upon the life insurance business in this country. As a guarantee of good intentions and to provide a fund to tide over the first years, a paid-up capital safely invested is a requirement of nearly every state for a new company.

However important the regulations of the capital stock and its investment may be to the young company, they are of little significance compared with the statutes governing the investment of the other assets of the companies. This is true because the other assets are so much larger than the capital stock. In 1904 the combined capital of the companies doing business in Wisconsin was eleven and one-quarter million dollars. The assets of the same companies amounted to two billion, three hundred million dollars. When regulations first were made, it was not known that reserves were necessary. Gradually the companies, getting on a more scientific basis, began to accumulate funds, then the states required a legal standard reserve, and to secure its safe investment enacted laws regulating the companies' action in this respect.

In some cases we even find laws being passed regulating the investments of the accumulated funds before reserves were required by the states. Particularly is this true regarding the amount of real estate which a life insurance company might possess. Massachusetts,

as early as 1836, limited the real estate investments of some fire insurance companies, and in 1849 New York laid down certain requirements about holding real estate by her life companies which have formed the basis of many subsequent acts. This law limited the amount of real estate which a company might hold to:

1. That which was necessary for the convenient transaction of its business.

2. Such as had been mortgaged to the company in good faith by way of security for loans previously contracted or for moneys due.

3. Such as should be conveyed to the company in satisfaction of debts previously contracted in the course of its dealings.

4. Such as should be purchased at sales upon judgments, decrees, or mortgages obtained for such debts.

All real estate obtained from settlement of debts due the company had to be sold within five years. The purpose of the act was clearly to restrict narrowly the ownership of real property by life insurance corporations. Wisconsin in 1850 [1] and New Jersey [2] in 1852 enacted laws similar to that of New York. Indiana in the latter year enacted that its companies could hold real estate for business purposes equal in value to $30,000. All that obtained through foreclosure of loans or taken

[1] Section 11, Act of June 17, 1852.
[2] Section 9, Act of February 9, 1850.

for debts was to be offered at public sale and sold to the highest bidder within a specified period.[1] Pennsylvania in 1856, Ohio in 1867, Iowa and California in 1868, Michigan in 1869, Kentucky in 1870, and Kansas in 1871 all prohibited the holding of real estate by their life companies, except under the four conditions given above for New York.

This peculiar policy of prohibiting the ownership of much real estate by life insurance corporations in this country was undoubtedly an inheritance from the English law of mortmain. The laws restricting this particular class of business corporations were an expression of the popular belief of the danger of allowing unlimited ownership in land to an organisation which did not die.

To-day the feeling of antipathy toward corporations owning real estate has died out largely, but the policy of prohibiting insurance investments in that particular asset has been maintained. This is due to the bad experience which companies have had with real estate during depressed business conditions. At the present time twenty states have laws forbidding the companies from holding any more real estate than that allowed by the New York statute of 1849. The real estate acquired through settlement of debts is in general to be sold within five years after so taken. The exceptions

[1] Section 11, Act of March 10, 1852.

to this rule are the States of Washington and South Dakota, which fix no limit on the time the real estate may be held; and in a number of states the five year period may be extended if the company can prove to the insurance commissioner of its state that it would be injured by such a sale. Utah has a statute definitely allowing investment in realty to any extent, and Alabama likewise has a liberal law. Connecticut allows her companies to improve real estate which they have obtained.[1] Massachusetts adheres to the system of allowing a certain amount to be invested in real estate for business purposes, the value being fixed for each company by special legislation. Twelve states make no provision whatever concerning what real estate may be held.

Georgia and New York deserve particular mention. Georgia not only provides for its companies to hold realty for home office purposes, but they may make a permanent investment in any city where they have agencies.[2] New York has enlarged the powers of its companies since 1849. In 1876, the privilege of owning real estate for business purposes other than the

[1] The Connecticut General Assembly in 1887 passed a special resolution allowing the Connecticut Mutual to invest a sum not exceeding five per centum of its assets in productive real estate outside of Connecticut. This law is worthy of notice as being one of the few providing for a direct investment in real estate.

[2] Section 18, Number 301, Insurance Laws.

home office was granted.[1] In 1883, the further right was allowed of holding real estate in foreign countries if it was needed for the transaction of business.[2] Land acquired in settlement of debts was still to be sold in five years, but in 1896 a law was enacted providing that when a company sold real estate the supreme court could authorise it to purchase more upon satisfactory proof that the property purchased did not exceed the value of the property sold by the company during the last three years preceding the application of the company to make new purchases.[3] As a result of the exposures made by the Armstrong committee this privilege, granted in 1896, has been taken away from the New York companies,[4] and the law concerning the ownership of realty in that State now corresponds to the regulations found in other states.

It is thus seen that the laws regulating the real estate investments are on the whole strict. Whether without them the companies would have purchased real estate in greater quantities or held on to that which came indirectly cannot be known. The larger companies in New York took advantage of the privileges granted them, but doubtless the poor return which real estate

[1] Chapter 357, Laws of 1876.
[2] Chapter 361, Laws of 1883.
[3] Chapter 35, Laws of 1896.
[4] Chapter 228, Acts of 1906.

has made would have prevented its forming a much larger proportion of the assets than it already does.

Legal regulation of the investments has not stopped with certain prohibitions concerning the ownership of real estate. It has gone further and has decided to some extent what should be the character of the assets owned by life insurance companies. The first regulations of this sort were contained in the charters of various companies. Massachusetts in granting a charter to the Berkshire in 1841, provided that its funds should be invested in such securities as were permitted to the savings banks.[1] In the charter of the Mutual Life of New York in 1842 was the provision of power to the trustees to invest not exceeding one-half of the premiums received in bonds of the United States, or of New York, or of cities in New York.[2] The Connecticut Mutual charter in 1846 allowed that company to invest in mortgage loans, and in collateral loans on state bonds and bank stock.[3] Pennsylvania in 1847, gave the Penn Mutual the right to invest one-fourth of its funds in mortgages, ground rents, Federal and Pennsylvania bonds, or in other good securities.[4] The National Life, in its charter of 1848, was required to invest in Federal or state bonds or in mortgages within

[1] Section 11, Charter of 1842.
[2] Section 5, Charter of 1841.
[3] Section 7, Charter of 1846.
[4] Sections 11, and 12, Charter of 1847.

the State of Vermont.[1] The Phœnix in 1851, received somewhat wider powers, being allowed to invest in Federal or state bonds, in mortgages, or in bonds of Connecticut cities, and one-fourth of the assets could be loaned upon endorsed promissory notes.[2]

These early charter provisions show one distinct tendency, namely, to confine the investments to the home states. There was one good and one bad motive for this action. Home securities were safer, for the risk would be better known than of those investments further away. This accounts for the good motive. The other motive which will not stand inspection so well was the desire to keep the funds within the state where the company was located. We saw this desire playing a part in the regulations of the capital stock investments, it shows itself here in charter provisions, and in the general laws we will see it frequently cropping out.

The first general statute regulating the investment of life insurance assets was enacted by New Jersey in 1852. This law declared the legal investments for New Jersey companies should be mortgages on real estate in that Commonwealth, bonds of the United States, and of a half dozen states.[3] Indiana in the same year passed a law[4] regulating investments but its terms were so

[1] Section 6, Charter of 1848.
[2] Section 13, Charter of 1851.
[3] Section 46, Act of June 17, 1852.
[4] Section 10, Act of March 10, 1852.

liberal that the companies were not restricted. The New York Legislature was the next one impressed with the need of a general act prescribing the legal investments which a company could make. In 1857, such a law was enacted permitting investments in United States bonds, in bonds of any state, or in the bonds or stocks of any institution incorporated in New York. Collateral loans could be made upon the above securities.[1]

Wisconsin in granting a charter to the Northwestern in 1857, provided that at least half the funds should be invested in mortgages. In addition to the common restriction to certain other bonds, a new power was granted this company. It could make loans to its policy-holders from time to time.[2]

The restrictions upon the powers of investing the general assets did not become general as rapidly as did the restrictions upon capital stock investment and the holding of real estate. By the end of 1870 only nine states had seen fit to place any restrictions upon their companies in the general field of investments. These nine states were New Jersey, New York, California,

[1] It is difficult to determine whether this is the first act regulating the investment of the accumulations of New York companies. Legal reserves were not yet required and the language of the acts is ambiguous. The law of 1849 regulated capital and "funds." The law of 1857 regulated "surplus accumulations" above capital stock, but provided that if any permanent fund is established by a company it shall be invested as required in the law of 1849.

[2] Section 11, Charter of 1857, Section 10, Amendment 1858.

Illinois, Iowa, Kansas, Kentucky, Ohio, and Wisconsin. At this time all of these states restricted the mortgage loans of their companies to real estate at home. Six restricted the purchase of state bonds to those of the state where the company was located, and only the bonds of cities within that state could be purchased. California and Iowa in addition to New York allowed investments in the securities of corporations chartered by them, and Kentucky allowed securities of railroads to be purchased, while Illinois permitted the stock of banks in that State. All of the nine made United States bonds legal investments, and permitted collateral loans on the securities which the companies could purchase. Outside of the evident purpose to keep the assets at home the noticeable feature is the restriction to public securities. Illinois and Wisconsin alone had a policy which was justifiable. These states provided that whenever companies chartered by them went into other states to transact a life insurance business that they could invest in all the securities of that state which they could at home. New York had a provision allowing her companies to purchase the bonds of those states which required a deposit of their bonds as a pre-requisite to doing business within their boundaries,[1] but the strong desire of her legislators to keep assets at home was visible in the new charter of the Mutual Life in

[1] Section 1, Act of April 12, 1860.

1866. One-half of its assets could be invested in United States, New York state, and cities of New York bonds, but at least one-half had to be invested in mortgage loans on real estate in New York.

But even New York had been forced to make a slight concession before 1870. The limitation of mortgage loans to real estate in New York was creating much friction. The companies in that State were objecting to it strenuously, because it forced them to make loans at a lower rate of interest than was being obtained by other Eastern companies untrammeled by state laws. People in the middle West were also objecting just as vigorously, for they felt that New York was unjustly depriving them of a financial advantage which was rightfully theirs to enjoy. The funds of the companies were being collected in large part from policy-holders in those states, the people in the West needed the capital, and were willing to pay well for its use, in a sense it belonged to them, yet the only security which they had to offer was real estate, and this New York compelled her companies to refuse. The companies exerted pressure upon the Legislature, the agrarian representatives became convinced that their interests would not suffer, and the privilege was granted of loaning on realty outside of New York, provided the property was located within fifty miles of New York city.[1]

[1] Section 1, Act of April 24, 1868.

The developments in the insurance world during the seventies led to much more legislation concerning the investments. The failure of half the companies in a decade, with the consequent disappointment and loss to the policy-holders, gave an impetus to state regulation which had not been felt before. States like Missouri which witnessed failures of practically all their once promising companies felt that legislation was necessary despite the fact that in those states which did have strict laws and insurance departments many companies had become insolvent. Ever since, there has been a gradual increase of regulation until at the present time there are twenty-two states which have imposed more or less stringent regulations upon the investments of their companies. This number of states is hardly a true criterion of the extent of the regulation of the investments, for it is precisely those states having legal enactments which have the largest insurance interests. Only one exception need be made to this statement. Massachusetts with a number of strong and well-known companies has removed her restrictions upon their investments, even in 1888 those provided in the charters of the mutual life companies.

Without going into detail as to the various changes which states have made in the laws as they were in 1870, we find that at present all the states having legal regulations allow their companies to invest in United

States bonds, just as they always have. In the case of state bonds a very noticeable expansion in the field is shown. Whereas in 1870 most of the laws limited the purchase of these bonds to their own particular state, at the present time eighteen of the twenty-two states allow investments in the bonds of any state. The same broadening of the field is true of investments in city and county bonds. Thirty-five years ago no state which had attempted to control the investments by general laws allowed the companies to go beyond their own boundaries for such bonds. Now, fourteen states allow this privilege. Not more than four states at present, Georgia, Nebraska, Pennsylvania and Texas, confine mortgage loans to the home state of the company. Even the New York Legislature at last gave up the attempt to keep the insurance funds within that State. The fifty-mile limit around New York city was finally extended in 1875 to all the states adjacent to New York,[1] but it was several years later before the companies were given the privilege of loaning freely on real estate wherever located.

In 1870 only four states allowed investments in corporation securities. At the present time a number of the states have exceedingly liberal provisions regarding these investments. California, Colorado and Utah per-

[1] Section 2, Chapter 423, Acts of 1875.

mit their companies to invest in the bonds or stocks of any solvent dividend-paying institution other than mining corporations. Connecticut, which formerly depended on charter regulations, now has a general law which allows investments in all corporation securities except those of mining and manufacturing companies.[1] One important provision is added, dividends must have been paid on such securities for at least three years preceding the purchase. New Jersey only excepts the stock of mining and manufacturing corporations and stocks commonly known as industrials.[2] Pennsylvania allows all railroad securities and those of other corporations incorporated in Pennsylvania.[3] Illinois provides that all corporation securities be purchased subject to the insurance superintendent's approval.[4] Wisconsin has a law which is regarded in many quarters as possessing exceptional merit. It allows no corporation securities except bonds of railroads and street railways.[5]

Nine states have made definite provisions for investments in policy loans up to a certain fixed proportion of the reserve upon the policies. A majority allow the companies to make collateral loans under certain re-

[1] Section 28, Chapter 63, Acts of 1879.
[2] Section 16, Insurance Laws of 1902.
[3] Sections 18 and 19, Act of May 1, 1876.
[4] Sections 11 and 12, Chapter 189, Insurance Laws.
[5] Section 1, Chapter 22, Insurance Laws 1901.

strictions upon the securities which they may purchase outright. Usually it is provided that at all times during the period of such a loan the market value of the collateral must be at least twenty per cent. in excess of the loan.

Some states, following in the main the above restrictions, have others peculiar to themselves. Iowa has enacted that not more than five per cent. of the assets shall be invested in national bank stocks.[1] Kentucky prohibits her companies from owning more than one-third of the capital stock of any bank or corporation. Nor shall the investment in railroad securities exceed one-half of the assets, and the mortgage loans on real estate are not to exceed three-fourths of the accumulated funds of any company. This law has the distinct purpose to so scatter the investments that the companies will not be seriously affected by the decrease in value of one class of securities or of the securities of one corporation.

Ohio permits no corporation securities of any kind to be purchased by her companies. State, city and county bonds can be purchased only when their market value is equal to eighty per cent. of the par value.[2] Nebraska has the same provisions and further does not even allow collateral loans. South Dakota has the

[1] Section 1806, Chapter 8, Insurance Laws.

[2] Section 3598, Laws of the General Assembly, 1902.

strictest laws of any state.[1] Only Federal and state bonds may be purchased, and these must be at least at par in the market. In addition to buying such bonds mortgage loans may be made.

Notwithstanding the strictness of the laws in the three last-mentioned states, the tendency on the whole has been to allow the companies a much wider field of investment. Especially are state boundaries now overstepped. Even the three with the strictest laws do not attempt to keep the assets invested at home. No movement in the field of insurance legislation is more striking than this one away from the narrow, unjust policy of restricting insurance investments to a certain field, not primarily for the sake of safety to the companies, but for the purpose of securing a better loan market for the citizens of that state.

This policy of restriction has not been entirely abandoned, neither has the opposite one which keeps appearing in different sections. If the states with companies were anxious to keep the assets at home, the states without companies, but paying premiums, were anxious to secure some advantage from the accumulated savings. Such a desire was once made manifest in law. Wisconsin in 1865, before she had a large company of her own, enacted that all insurance companies doing business in Wisconsin should deposit a certain percentage of the

[1] Section 703, Article 17, Insurance Laws.

premiums collected in Wisconsin with the State Treasurer in Wisconsin bonds.[1] The law overshot the mark. Not content with trying to keep the capital at home, the legislators tried at the same time to make a market for Wisconsin state bonds. The last feature was a most serious objection to a successful operation of the law, and the whole law was repealed in less than a year.[2] Since then such a law has never been enacted, but the idea has been constantly in the minds of legislators. We will see it more fully in a study of insurance taxation, working indirectly, but it has been expressed openly in projected laws. In Kansas during the session of 1880–1 a bill was offered to compel reserves to be invested in Kansas. Governor Culberson of Texas in his message to the Legislature in 1896 strongly urged such a measure for that State, and as late as 1903, a bill was introduced in the Illinois Legislature requiring the life companies to invest ninety per cent. of reserves on Illinois business in Illinois securities.[3] The South in its present need of capital is now urging the justice of this plan.

Another way in which states have regulated to a very slight degree the investment of the assets has been through the deposit laws. Arkansas in 1864

[1] Act of March 29, 1866.

[2] Act of April 6, 1865.

[3] The Insurance Spectator, Volume 70, Page 157.

wanted to borrow $150,000. In the act authorizing the loan it was provided that all life insurance companies should make a deposit of $20,000 in Arkansas bonds as a pre-requisite for doing business in that State.[1] The plan thus inaugurated was followed somewhat extensively for a few years, but it has fallen into general disfavour. Virginia alone still requires a deposit from all companies. It is now usual to require a deposit in a single state, that being the one in which the company is organised.

When New York passed the general incorporation act for insurance companies in 1849, it prohibited the companies organised under the act from directly or indirectly dealing in, trading, buying, or selling any commodities. A half dozen states in the next few years enacted similar laws. Wisconsin in 1870 prohibited life companies from doing a fire insurance business or engaging in banking.[2] The prohibition of life insurance companies from doing other kinds of business is now general. The result is that there are no life insurance companies transacting fire insurance, a combination not infrequent in England.

A class of laws affecting the investments of those companies doing a foreign business remains to be considered. One of the most common of the requirements

[1] Section 1, Act of May 31, 1864.
[2] Section 18, Act of March 14, 1870.

of foreign countries is that outside companies must invest the reserves upon the policies written in that country in the securities of that country. A striking example of these laws is afforded by the Argentine Republic. By a law passed in 1898 the Argentine government was authorised to issue a loan of seven million pesos in five per cent. bonds. Contributions to the loan were compulsory by foreign companies to guarantee contracts entered into by them in that country.[1] Prussia required that one-half of the yearly premiums of Prussian policies, besides the interest thereon, must be invested in Prussian consols. Besides, American companies were required to dispose of their stock and loans on stocks if they continued to do business in Prussia.[2]

This concludes the study of the laws regulating the investments of our life insurance companies. Before taking up a discussion of those laws it will be well to take a hasty survey of the regulations imposed by other governments upon insurance companies.

Canada has followed the lead of the United States in the matter of insurance legislation. Certain broad classes of assets have been permitted as legal investments to the companies, not always the same as those selected by

[1] Charles Le Jeune. Transactions of the Second International Congress of Actuaries, 1898, Page 35.

[2] The Insurance Monitor, 1900, Page 35.

the states, but still along the same general lines. It is in England where we find the greatest variation in the attitude of the government. For years that country allowed her companies almost absolute freedom in all respects, and then because of grave evils which arose was forced to exercise some supervision, and a law for this purpose was passed in 1872.[1] However, in that law no restrictions were placed upon the investment powers of the companies, and the only limitations to-day are those contained in the charters of the companies. Taking as a basis a report[2] made in 1891 regarding the privileges of some seventy-two companies in England, it is found that thirty-three have unlimited powers of investment. Of the thirty-nine having limited powers, thirty-one have power to invest in ground rents and income arising from land; seventeen are allowed to invest in real estate, usually in such as is required for business purposes; twenty-six can invest in foreign government securities, in most cases of any government; twenty-four can invest in English or Colonial municipal bonds; thirty-five out of thirty-nine have considerable power to purchase the shares and other securities of corporations, the usual requirement being that the shares must be dividend-producing and with limited lia-

[1] 33 and 34 Victoria, Chapter 61.

[2] Mr. A. G. Mackenzie, Journal of the Institute of Actuaries, Volume 29, Pages 218 ff.

bility; and nineteen can loan on personal security. These investment powers are extremely liberal. Not only can the companies go to the colonies to find paying investments, but even to countries with no political connection with England, and nearly one-half of the companies are entirely unrestricted.

Australia has followed the English policy. The companies are permitted to invest in whatever they choose except in land. Land speculation is prohibited.[1] The Government Insurance Department of New Zealand is confined in its investments to government bonds, loans to municipalities, policy loans and mortgages on real estate.[2]

Germany finally decided in favour of imperial control of the insurance business, and while the restrictions placed upon the investments by the Empire are not as strict as were those of Prussia, they are probably the most exacting now to be found. The funds are to be invested in the same securities as are prescribed by law for the investment of orphans' money, or in mortgages on real estate, in policy loans, or in the bonds of local public bodies, or in bank stocks.[3]

For years the French laws compelled companies in that country to invest in government funds all sums

[1] Transactions of the Faculty of Actuaries, Volume 11, Part V, Page 104.

[2] The Insurance Times, November, 1887.

[3] The Insurance Spectator, 1901, Page 62.

received from the assured, and that within five days after their receipt.[1] This limitation has been removed until at present the insurance companies may invest in whatever the "Council of State" deems are safe securities.[2]

It is not necessary to point out why some supervision over the business of life insurance is essential. Abuses in banking have forced most governments, certainly those of the various commonwealths in the United States, to exercise control over that business. Yet in banking the public is far more able to protect itself than it is in the business of life insurance. Even men who are successful in other lines of business know few of the underlying principles of insurance. Of itself the public is helpless in regard to the equities of the business and in respect to a quick test of solvency has no power whatever. The liabilities of an insurance company are all deferred and a policy-holder cannot withdraw when he is dissatisfied. In most businesses, a wrong step shows immediate effect and compels an immediate correction, but in life insurance a fatal error may be made and yet no signs of it appear for years so far as ability to pay present claims is concerned. On these considerations, it seems evident that interference on the part of the government in insurance affairs

[1] The Banker's Magazine, Volume 11, Page 380.
[2] The Insurance Monitor, 1894, Page 292.

is not only justifiable, but that it is a matter of duty; and though the legislators in the United States have gone entirely too far in the matter of regulation, experience has justified the policy of some state interference.

Every country which has insurance companies has felt the necessity of legal regulation of their business. We are here concerned, however, only with those enactments which are aimed at the investments. Along this line the action of the different governments has varied widely. Countries with similar institutions in most respects have pursued widely divergent policies in the regulation of the investments of their companies. For instance, England, Canada, Australia, and the United States have homogeneous customs, precedents, and law, yet in this particular form of regulation, the United States and Canada pursue a diametrically opposite policy from that of the mother country and of Australia.

In seeking a cause of this divergence, it cannot be found in the greater evils which America has suffered from unscientific and fraudulent experiments in the insurance business. England has suffered just as much from abuses in insurance as has the United States, and perhaps even more. However, her interests have probably not been injured so much through the investment side of the business, and this may account for the difference in the laws of the two countries. One of the

first evils which had to be combated in the United States in the insurance world was the misuse of the funds committed to the care of the companies. The spirit of trusteeship has always been weak in this country, and great risks in investing have had little terror even to the guardian of trust funds. Added to these elements, there has been a great abundance of speculative securities, giving the opportunity of which trustees were prone to take advantage. Because of these conditions, the American states began to throw restrictions around the investment of the funds, even before it was determined what were the liabilities of the companies.

An instance of this cause of legislation regarding the investments is seen in the establishment of the state insurance department of New York in 1859. Repeatedly during the previous years companies had been formed to carry on the insurance business whose assets consisted of mortgages on worthless land, or of bank credits made to last only until false oaths as to their ownership could be filed. This is a typical instance, showing that legal regulation did not come because legislatures foresaw abuses which might arise. Much as one may regret the turn that legislation took, and however mistaken the policy of regulating the investments has proven to be, it must be remembered that the laws were called into existence to prevent a repetition of offences already committed. State after state left the

business untrammeled until abuses became serious, and the legislative bodies thought that the evils could be removed by regulating the investments. Missouri practically had no legislation on the subject of insurance until three or four of her once promising companies became insolvent. Connecticut had no general law regulating investments until the largest failure in the annals of American life insurance changed the policy of the state and forced upon the companies general legal regulation of their investments. At the present time, the widespread demand for more restrictions upon the investment power of the companies is due to the abuses which managers have made of their present power. This breach of faith on the part of the men conducting the business must be admitted even by those who are opposed to legal regulation.

We have said the legal regulation in this country of the investments has had two objects in view, namely, to secure the investment of the assets in certain classes of safe securities, and to make those assets bear the scrutiny of inspection through publicity. Taking up the latter purpose first, publicity of the investments has not secured as great results as might have been expected. This is due to two causes. One has been that the published reports of the companies have not always been true. It has been the duty of the heads of the various insurance departments to see that the

annual reports are a true index of the companies' condition. But it is a notorious fact that companies have been able to grossly misrepresent their condition year after year to the insurance departments, and when the conditions became too bad to be longer concealed, the assets which some of these companies possessed did not have a value equal to a third of that reported. The duty of the insurance commissioners is to make periodical examinations of the companies, but too often these inspections have been made of little avail, because the inspector has not descended into the strong rooms of the companies and examined the securities in detail. The public has been lulled to sleep, thinking that such examinations were made, and the companies, undisturbed by official examinations or by inquiry by the public, have violated sound business rules with impunity.

However, neither the state insurance departments nor the managers of companies should receive all the blame. Private vigilance can discover few of the weaknesses in life insurance companies, but the existence of the best public supervision would have hardly justified the lack of discrimination by the public which has been so manifest in the United States. Apparently all obligation to see that the companies are well managed has been shifted to the state by an apathetic public, and this complete dependence upon state supervision

which has not been efficient has been the means by which weak companies have perpetuated their existence far beyond their time of "actuarial" insolvency.

The other reason why publicity of the assets has not accomplished much is because there can be no real publicity in regard to a large amount of the assets. A list can be printed of the stocks and bonds owned by a company and the public can examine these for itself. Similarly the securities pledged for collateral loans can be published and the safety of such loans determined. However, when other classes of assets are considered, it is readily seen that the published report can give little idea of the real value of the investment. Take mortgage loans as an instance. Their safety depends upon the value of the land mortgaged. The published report does not give this, and even if the specific pieces of property mortgaged were given, which perhaps might be desirable, the report would still give little knowledge to the average policy-holder, since he can know land values only in his particular vicinity. Thus, of a class of investments forming from twenty to ninety per cent. of the total assets of various companies the annual report can show nothing but a mere statement of value.

Such a condition detracts greatly from the utility of publicity. It accounts to a certain degree for the fact that some companies during the seventies with large mortgage holdings continued to beguile not only the

public but the insurance commissioners long after they were insolvent. However, this does not indicate that such itemised accounts of the assets as have been given have been of no value or now should be omitted from the official annual reports. It simply points out the necessity of relying upon the state insurance departments to see that certain parts of the assets are secure. It emphasises the responsibility upon the state and the lack of power of the individual.

The other object of legal regulation has been to secure safety of the assets by limiting the power of the companies in the investment field. We have seen the enactments by which the states hoped to accomplish their purpose. It is extremely difficult to learn what has been the effect of these laws defining legal investments. They were passed to prevent a recurrence of abuses already committed, but there have been most serious evils in the insurance business since they were passed. In the first place it is to be noticed that the legal limitations upon the investments have not prevented numerous failures of companies. New York was the pioneer in such legislation, and yet more than half the companies organised in that State have become insolvent, and especially is this true of the period when the restrictions upon the investments were the most severe. It would be rash to say of these failures or of any failures of insurance companies that they were due

to poor investments alone, for poor investments seem to be related to bad management in general. However, the fact remains that in states having some of the strictest requirements for the investment of insurance funds, companies have succeeded in investing their funds in unsafe securities.

There are some who urge that the want of success of the present laws has been due to the liberality of the laws. They claim that the restrictions have embraced such a large field that many chances for fraudulent practices were included. Many of the failures could have been avoided, and abuses still existing would never have occurred, it is further said, if the states had specified certain securities in which the companies could invest. Thus, instead of allowing them to buy any railroad bonds, have the legislature select certain roads whose bonds could be purchased. To adopt such a plan would be a serious mistake. It might or it might not secure greater safety of the investments, but we may be sure that it would be a heavy task to impose upon the state legislatures the duty of selecting the securities. The pressure which interested financiers would bring to bear upon the law-makers to get securities accepted would not be conducive to good government, and securities selected under such pressure would not always be safe. Besides this serious objection to the plan, its adoption would also mean a lower rate of

earning power on the assets, and thus insurance would cost more. Because of these objections to this plan of specifying certain securities, it has never received strong support.

However, there is a vigorous demand for a more moderate reform than the above. It is pointed out that most of the abuses in the investment field, at least at present, are due to the close alliance between insurance companies and other corporations through the stock investments by the former. Therefore it is argued that if the state would prohibit the insurance companies from purchasing stock a long step would be made toward freeing insurance assets from many dangers.

We must admit that there is much force in this argument. We have pointed out in a previous chapter the peculiar position of an investor in stocks in relation to the corporation whose stock is purchased. He is the owner of the business to the extent of his stock purchase, and as owner he is responsible for the control of that enterprise. A law prohibiting stock investments by insurance companies would prevent them from entering into this relation of ownership, and undoubtedly would remove some of the power now wielded by large insurance accumulations.

Notwithstanding the strong arguments in favor of this stricter limitation of the investment field, we believe that there are serious reasons why the plan should

not be adopted, and in fact why all legal regulation of the investments should be removed. The repeal of existing laws and the granting of freedom in the future to the companies in making their investments is advocated on the following grounds.

1. A limitation of the investment field will not necessarily bring safety, and it involves a reduction in the earning power of the assets.

2. Previous laws have had a pernicious effect.

3. Legal regulation is ineffective to prevent misuse of funds.

4. Legal regulation leads to a decrease in personal responsibility.

5. The desired result can be obtained in a more effective manner.

Taking up these objections to legal regulation in order, in the first place it must be realised that there are poor and unsafe investments in every field, and the best stocks are better than many bonds, yet by limiting the field to bonds, the states are compelling the companies to take less attractive securities than they otherwise would if there were no limitations. Again, investment in stocks does not necessarily mean that evils are sure to come to the company. If the management is worthy, such investments may be a source of much profit to the policy-holders, and if the management is unworthy of confidence, it does not make much dif-

ference how many restrictions are thrown around the investments. No one claims that the companies should not be allowed to invest in mortgage loans, yet managers have used this outlet for as shameful speculation with policy-holders' funds as was ever made in stocks. The evidence before the Armstrong investigating committee during the past year did not show that the company without any investments in stocks had been any freer from certain practices, now much condemned, than were the companies with large stock holdings. The fault lies not with the investments, but with the management controlling the assets.

If the companies are confined to certain classes of securities, not only will poorer securities in those classes be purchased, than the best in other classes, but the competition for them will be so keen as to drive the rate of interest down. No one knows to what extent insurance accumulations will grow and it would be an economic loss to the country if they were confined to certain low-interest bearing securities. Besides it would make insurance more expensive to the public, a condition hardly desirable.

It may seem radical to advocate the repeal of the existing laws regulating investments, but such action is justified by a study of the effects such laws have had. It is pretty difficult to point out any good that has been accomplished, but it is clear that there have

been pernicious results which can be attributed to the laws. A prominent case in point in the New York law confining mortgage loans to New York real estate, a law which was in force for years. For some time that law may have been beneficial, at least it did not interfere much with the companies. When assets were small they naturally would have been invested near home. When the assets became larger, the effect of the law was mischievous. The New York companies were restricted to a narrow field to compete with savings banks and trustees confined by law in the same way. The rate of interest on mortgage loans went down, and the insurance companies, unlike savings banks, which are local, had to face the rivalry of companies from other states which were earning a higher rate of interest. To maintain themselves, the New York companies turned to other fields of investment, namely, large collateral loans, deposits in trust companies, and corporation securities, the very class of assets which it is now wanted that they should give up. Connecticut did not allow the Charter Oak to buy railroad bonds. It did not buy such bonds, but it took the personal note of the president of a railroad, and later came into possession of the second mortgage bonds of the railroad. It might not have been that the Charter Oak would have purchased better railroad bonds if it had been free to do so, but certainly the justification of loaning on a per-

sonal note would have been lacking. These are but two instances of the bad effect of the law regulating investments, but they could be duplicated by a number of others during the last thirty years.

This leads to a discussion of the third objection to the laws, namely, their ineffectiveness to prevent abuses. For instance, what shall be done about cash deposits in banks and trust companies? Just how the states can regulate the amount of these deposits and not do serious injury to the business is difficult to understand, yet it is through the cash deposits that many of the most serious evils have crept into the business. The advocates of state supervision say that surely insurance funds must not be allowed to be used in promoting new industrial enterprises. It is by far the best thing for insurance companies to keep out of that sort of thing, but they had better be allowed to do it openly than through the medium of a trust company which uses the cash deposits of the insurance corporation. If insurance funds are to be used in underwriting securities, it is better that the company should do it openly and get the profits rather than the officials who do it secretly. The ineffectiveness of legal regulation is seen in another respect. The Prussian law compelled the American companies to sell their stocks as a prerequisite to doing business in that country. One large company did so, but how? By transforming them into bonds

through the agency of a holding company. That insurance company was not strengthened by this sale of stocks. Rather it was weakened, for now in looking over its published assets, the public cannot learn just what is the security behind these new-fashioned bonds.

The fourth objection to legal regulation, especially of the present type in most of the states, is that it is so general in character as to have very little positive force. Many of the laws are only the semblance of regulation, yet the public gets the false impression that its interests are safe-guarded when they are not. At the same time officers of insurance companies may feel that they have done their duty to the investments when they have not overstepped the boundaries set for them by law, when in fact they could have done much better toward getting safer and more remunerative assets.

On these grounds it is advocated that legal regulation of the investments should be abolished. Especially is this urged when it is possible that a more efficient method can be devised to secure good management of the assets. The discussion of this method will form the subject of the succeeding chapter.

However, before leaving this chapter something should be said about the state departments of insurance. If the method of treating the companies here advocated is ever adopted, its success will depend in a large meas-

ure upon a more efficient organisation by the states of their supervisory departments of insurance.

State officials must be secured who are able and courageous enough to find what is the true situation within a company. Having once learned the facts, the state must publish them fully so that an intelligent opinion can be formed. If all sorts of stocks are bought by a company, if it is engaged in promoting new enterprises, and in underwriting securities, the public must know about it and policy-holders present and prospective must care enough about the situation to become interested. With the greater freedom of investment, should come changes in the methods of management of the companies, and the character of these changes will now be discussed.

CHAPTER VII.

CONTROL OF THE ASSETS.

In the preceding chapter, the conclusion reached was that legal regulation of the investments should be abolished. It is claimed by many that such a step would be disastrous to the insurance interests of the country. An eminent actuary said a few years ago that he was sure that without the present state supervision of the investments, it would very quickly happen that advantage would be taken to secure control of companies for the purpose of using their assets to help out other undertakings. If such would be the result of the repeal of the present enactments it would be a most serious objection to the policy which we advocate.

The answer to this objection is that we do not need to wait until the legal regulations of the investments are removed to have attempts made to secure control over the assets of insurance companies. Almost from the very beginning of life insurance in this country, men have deliberately gone about to secure control of companies, and once successful, have exploited the assets for their own particular ends. If there is any fact

which stands out more prominently than others after a study of failed life insurance companies, it is not that danger of failure comes from poor investments due to a lack of judgment on the part of the officers of a company, but that the great cause of failure is due to mismanagement and fraud. When the officers of the Globe lent money on the stock of a railroad which had not been built, and never was, that was an appropriation of the funds which was made wilfully. A clique obtained control of the Charter Oak not for the purpose of making investments of its funds for the good of the policy-holders, but to help out their own private enterprises. The syndicate which wrecked the American Life never had any other purpose in view than to get its assets as quickly as possible. These instances are given to show that even under legal regulations more strict than most of the present laws, the accumulated funds of life companies have been the prey of designing men.

It is not contended that the removal of the present restrictions over the investments would remove the danger of companies falling into improper hands. Quite the contrary, it would emphasise that danger but in doing so would direct the attention of the public and of legislators to the vulnerable point in insurance management. As companies become larger and assets increase in amount the proper control of them, already

a vital question, will become of almost supreme importance.

What are the specific evils that have cropped out in the management of the assets? They are, first, that the officers and directors of some companies have made indirect, if not direct profit from the investments which they make of their company's funds; that the directors or trustees in many cases where they have not been improperly interested in the disposition of the funds have taken no interest whatever in the management of their company; and lastly, that the policy-holders in mutual companies have never come to realise that the assets belong to them, and that the responsibility for their proper management in the last resort really rests upon them.

These weaknesses in the management have been long apparent and a number of states have tried to eradicate them through legislation. Taking the first abuse, that of the officers and directors making a personal profit from the investments, five states have enacted strict laws prohibiting such practices. Without going into a history of these enactments but taking the situation as it is at present, Texas has a law which if it was enforced would leave little to be desired in this respect. This law provides that "any stockholder, director, member of a committee, officer, or clerk of a home company who is charged with the duty of handling or investing

its funds shall not deposit or invest such funds except in the corporate name of such company; shall not borrow the funds of such company; shall not be interested in any way in any loan, pledge, security or property of such company except as stockholder; shall not take or receive to his own use any fee, brokerage, commission, or gift or other consideration for or on account of a loan made by or on behalf of such company," [1] New York,[2] Massachusetts,[3] North Dakota,[4] and Nevada,[5] all have laws which, while not as stringent as the Texas statute, still aim to eliminate the same abuses.

No one questions the propriety of such laws, they can only lament their necessity. That the officers or directors of a company should make a personal gain out of the investment of the funds which they control is repugnant to business morality. But the laws have not accomplished much. Whether this is due to the difficulty of determining when the law has been infringed, or to the lack of specific provision for punishment when broken, or to the fact that public officials have not tried to enforce the act, is difficult to say. Since the passage of the act in New York, there have been a number of violations of it, apparently flagrant.

[1] Section 56, Chapter IV, Insurance Laws, Digest of 1903.

[2] Chapter 434, Laws of 1881, and Section 9, Chapter 326, Laws of 1906.

[3] Section 25, Chapter 18, Revised Statutes.

[4] Section 3107 Chapter 14, Revised Code.

[5] Section 3, Act of February 23, 1881.

In the famous investigation a number of years ago of one of our larger companies having its domicile in New York, it was found that for years the company had been purchasing its securities from but one brokerage firm. The senior member of that firm was a trustee in the insurance company and a member of its finance committee. During the period of his connection with the company, his firm received commissions on sixty million dollars worth of securities sold to the insurance corporation. It may be granted that the insurance company did not suffer through this close connection, but nevertheless it should never have been allowed, for it was a clear violation of law.

Men connected with the companies and even disinterested authorities claim that there are advantages accruing to the insurance corporation in having men on its finance committee who have close, perhaps official, connection with other financial concerns. It is urged that such men are in close contact with financial movements, know the value of securities which the insurance company needs, and whatever advantage they may obtain as financiers are properly shared by the insurance company. This situation is hardly possible. To serve a banking house well, an official connected with it is interested in selling securities at a high price, for that same man to do equally well by the insurance company he ought to buy just as cheaply as possible. The in-

terests of the two companies are diametrically opposed and no man can do his best for both.

The particular statute which Texas has enacted should be copied in other states and enforced. If it is found that present penalties are not severe enough, its violation can be made a penal offense. It is not necessary that there should be a close alliance between insurance and other financial enterprises such as banks and trust companies. The labor of running an insurance company is great enough to command men with the highest talent, salaries are ample and if they are not, it would be to the policy-holders' interest to pay enough to get men who will give their company their undivided attention, rather than pay half as much and get men who divide their energies between several undertakings.

We have spoken so far about the officers of the companies for the most part. These officers, in theory, owe their positions to the board of directors or trustees of a company and are responsible to those trustees. A trustee of an insurance company is in a peculiar position. The directors or trustees in nearly all other lines of business hold their positions because they are the representatives of large financial interests in that particular line of business. They either themselves own a large amount of its capital stock or represent a combination which does. Therefore their action is determined by the one consideration, namely, that of securing

the greatest net return upon their investment. All the property they control is their own. But life insurance companies are extremely different. Even in stock life companies where the directors are perforce owners of some shares in the corporation, these directors soon come into the control of much larger funds than their original investment. In the case of the mutual company, there has been no investment by the trustee whatever, and his relationship to the funds is one of trust entirely.

This anomalous situation of life insurance companies' boards is further complicated by another condition. Men have been chosen frequently, indeed almost as a rule, for directors or trustees not because of any particular interest which they have had in the business, but because their names were prominent ones in the financial world. These men have accepted the responsibility, but loaded down with the burden of business in which they have a direct pecuniary interest they have, in many cases, given but little time to the insurance company. The name of "dummy" has been given to such directors, and the dummy has played an important rôle in insurance history. In the seventies, when the companies were younger and smaller than now, such directors and trustees were numerous. They did not perform the duties of their positions and officers looted companies of their assets almost at will. Many of the com-

panies which failed had boards of trustees composed of able men. Now, it may be valuable in some ways to a new company to have a board made up of prominent figure-heads, but on the whole that policy has proved unsatisfactory in this country. Unless the men chosen for these positions are interested, and able to give part of their time to close supervision over the business of the company, that company is weaker for their names being there than if they were absent. They give the company the appearance of strength which it has not. We could be much more assured of a hopeful future for the companies and of a more beneficial use of the assets both from the standpoint of the policy-holder and of the public, if the so-called dummy director could be eliminated.

Boards of directors or trustees composed of able but very busy men have been more than willing to delegate their powers to others. Such a procedure would have been necessary in the case of a number of companies with their large unwieldy boards, but the directors have too often escaped all their duties by delegating their powers to a committee of the board and then making the officers of the company a quorum of this committee. An examination of the charters and by-laws of the companies under consideration in this thesis shows that in nearly all cases a committee of the board has charge of the investments. This committee has two typical forms,

one type being a committee composed almost exclusively of board members, and the other type being a committee of which board members still form a majority, though the officers of the company upon it are so numerous as to be able to form a quorum.

Of this last type, the Berkshire is a good example. In that company, the President, the Vice-President, the Treasurer, and four members of the board of directors constitute the financial committee. Three of the number may do business provided they all concur.[1] The Equitable is another familiar example. Here the executive committee which consists of the President, the Vice-President, and the Comptroller, the chairman of the Finance Committee and five other directors, has charge of the investments. Four of these shall be a quorum. Thus, in these two companies, the board of directors has practically shifted all responsibility of making investments and caring for the assets upon the executive officials of the company.

The finance committee of the Massachusetts Mutual consists of six directors, including the President, ex officio, and three members may constitute a quorum for the transaction of business. The New York Life, the Home, the Germania, the State Mutual, the Michigan Mutual, and the Northwestern, all have finance committees similarly composed. The trustees of the Mutual of

[1] Section 8, By-Laws.

New York and the Phœnix and the directors of the Aetna have retained the control of the investments exclusively in their own hands. In all the companies the president is the presiding officer of the board of directors or trustees.

The result of this action on the part of trustees and directors in transferring their power to the executive officials is that the companies are, to all intents and purposes, run by their officers. When mistakes or frauds crop out in these managements the directors take refuge in the plea that they did not know what was going on. It is the one man power, or the power of a small clique in a company, that makes life insurance assets a desirable prize to be sought, and which leads to a use of these accumulations which never would be sanctioned by the policy-holders to whom they belong. The president of a company should not control the investments nor have sole custody over the assets. In the great railway reorganizations the separate functions of the president of the company and presiding officer of the board of directors has often been vested in two persons. This is the system employed in English insurance companies and though these companies have not had the rapid growth characteristic of American companies, nevertheless they have had an expansion which has been healthy and not produced at a tremendous cost.

There can be no doubt but that much of the misman-

agement of the assets and improper investments could be obviated if the responsibility of their control could be fixed upon the men to whom it belongs. The board of directors or trustees must be brought to know that their duty is not over when they have heard read the annual report of the company, and they have been perfunctorily reelected by the officials. It has been suggested that laws be enacted providing that an insurance company should not be permitted to loan or invest any money except at a regular meeting of the board of directors and that each director's vote should be recorded. This would create a personal responsibility in each case, an end very much to be desired. If it be objected that this is a cumbersome method, as perhaps it is, the same end might be accomplished by holding every man whose duty it is to know the condition of the company responsible, civilly, and in criminal prosecution for any material mismanagement of the assets, and for any serious misstatement in the annual reports of a company. If there was certain punishment for fraud in insurance managements, and if the officers and directors were held accountable for any malfeasance or breach of trust, a long step would have been taken toward the protection of the assets.

However, when the responsibility of managing insurance accumulations is lodged with the board of directors or trustees, as the case may be, much remains to

be accomplished. The members of these boards secure their positions theoretically either as representatives of stock-holders, or of policy-holders. Of all the questions in the insurance world there is none more vitally important than the problem of securing the control of the assets to those who really own them. The problem is a difficult one with mutual companies and still more complex in the case of stock companies.

The case of the stock companies will be considered first because the dangers are more pronounced in the case of such companies. It is not necessary to go into the history of stock companies. The states have always allowed such companies to be formed, and in fact after the scandals attaching to the organization and subsequent failure of many of the earlier companies, even passed laws which made the formation of anything but a stock company difficult. The purpose of such laws was good. During the early years of a company's existence the expenses are heavy, and unless some sort of capital is put up the company is likely to fail. However, the legislation which the states have enacted in this respect has had the boomerang effect noticeable in so much of insurance legislation, and which we have clearly seen in the case of the investments. Most of the laws made no provision for a retirement of the capital stock, and as companies formed under those laws have outgrown the necessity of such stock, it has

remained as a dangerous tool by which men can obtain control of valuable assets, and in obviating one danger, the laws have brought on a more potent one. A control of the capital stock has been usually retained in the hands of a single person or of a small group, and thus such companies are always exposed to the danger of those persons misusing their power, and still being able to retain their positions or of selling their control to some one who will. It is an absurdity that a few thousand dollars of stock should control absolutely millions of dollars belonging to another set of persons. If stock companies were confined to writing non-participating policies, and did nothing to impair their ability to carry out the contracts entered into by them no objection could be raised to the stockholders using the assets for any purpose they might see fit. When, however, such companies are allowed to write participating policies and men are induced to insure in them with the understanding that they are to get the profits of the business, then the stock control becomes an unfortunate condition. With any kind of policy, participating or non-participating, the danger to a stock company from some speculator by a small investment getting control of much larger assets will always remain. With the stock centralised in a few hands the plan is easier of accomplishment, and the history of the American Life, though a company with small assets, shows how easily control

of a stock company can sometimes be secured and its assets dissipated.

The states should change their laws immediately. If it is still considered necessary to have capital stock as a guarantee of early stability, let the states provide for its compulsory retirement at a time when the solvency of the company will not be impaired. Such laws have already been enacted and have worked satisfactorily. Another way in which mutual life insurance companies can be started successfully is through the operation of the reserve deposit law. Perhaps this is better and easier than the guarantee capital plan. By such a law a new company is compelled to deposit with the state a reserve upon its policies until the assets have reached a certain amount when the deposit may be withdrawn. In at least two of the middle Western states mutual companies have been successfully formed in this way. It is no absolute guarantee against failure, for the state officials have not always been careful that the securities deposited were valuable, but with able supervision the plan ought to work.

In these ways mutual companies can be started. Capital need not be attracted by the great rewards of the business, and the danger of having a small amount of stock later control large assets can be removed.

However, when life insurance companies are made mutual in their organisation, grave problems still re-

main to be solved. In fact there is nothing in the insurance business to-day calling for more consideration than the question of securing some sound system of control of mutual companies. All mutual companies are organised on the theory of control by the policy-holders. Each year there is an election of a certain number of trustees, and it is the assumption that the men chosen hold their positions because the policy-holders in the company want them. This is the theory, but practically mutual companies have not been run in this way. With a large membership distributed all over the country, the impossibility of personal participation in the selection of officers and of consideration of questions and methods affecting the organisation has led to a resort to proxy voting. This has placed most of the large companies in the hands of a few individuals, so much so that policy-holders have almost lost sight of the real ownership of the accumulations and of their rights in the companies. The officials by reason of their long tenure in office have looked upon their company and its management as a matter that concerns them only as proprietors and not as agents responsible for their acts. The result has been that abuses have been almost as numerous in the management of mutual companies as in stock companies.

The lack of interest which policy-holders have taken in the election of trustees is notorious. Each year the

notices of the elections are advertised in the daily papers, or notices are sent out in other ways, but the policy-holder has not been concerned. So generally is this true that the story is told of a policy-holder who, having received the notice of the annual election in a company in which he had insured, went on the appointed day to cast his ballot. Met in the home office by the janitor and stating his purpose, he was informed by that individual that no election was being held. Insisting, however, the would-be voter finally persuaded the janitor to see some officer. The officials of the company were already gathered for the formality of the annual election, and great was their surprise on learning that a policy-holder wished to vote. After considerable deliberation on their part the member of the mutual company was ushered in and allowed to cast his ballot. Whether this particular incident is authentic or not numerous cases of apathy on the part of the policy-holders can be cited. In 1899, one hundred and seventeen votes were cast for the trustees of the New York Life, one hundred of which were proxy votes, leaving seventeen to be cast by persons, and few of these were policy-holders not connected with the company in an official capacity. In 1905 despite the excitement caused by the disclosures in certain companies early in the year, only twenty-eight persons voted for trustees in the same company.

Conspicuous as is this lack of interest on the part of policy-holders it is not difficult to explain. Notwithstanding the fact that every policy-holder has a vote which he can cast, in actual practice, the number which can be interested have been almost powerless to accomplish desired results. It is not necessary to give many examples of this. In 1871, there was an attempted opposition ticket for the Mutual Life board, but nearly ten thousand proxies were held by the officers and the attempt accomplished nothing. Suppose in 1905, a considerable number of policy-holders instead of twenty-eight had desired to effect changes in the board of the New York Life. It would have taken a considerable number co-operating together to have accomplished anything, for the management controlled twenty-five thousand proxy votes. If these proxies had been given to officers because that many men believed in the policy which the management had pursued the case would not have been so bad, but too often the proxy is given by the man who has not taken the trouble to inform himself and gives away his vote because he is solicited. The management of the company has a much better chance to gather such votes than does any member outside of it. The officers have a complete list of the policy-holders and an organised agency force. The individual member has had no means of interesting any great number of his fellow members.

Until recently he has no access to their names, and as was said, the members are scattered, and even the opposition when of some size is likely to have many diverging opinions as to what policy to pursue.

The proxy system is further complicated by the giving of proxies often for long periods. In some instances, the policy-holder has signed a proxy before he is insured, the proxy being contained in the application. When proxies are given thus so far in advance, the policy-holder sometimes has wished to vote only to find that he has already surrendered his privilege.

Whether the proxy system can be changed so as to work well is doubtful. Under present conditions it is necessary, for without it, mutual companies would be at the mercy of designing schemers who, allured by the large accumulations, would get together and, gathering a mere handful of members at the annual elections, would secure the control of the companies. That this is a real danger is amply proven. An interesting example of it is afforded by the experience of one of the mutual companies of Connecticut. A number of men, needing money to bolster up some land speculations in which they had engaged, succeeded in getting a law passed changing the mode of electing the trustees of mutual companies. Simultaneously they scoured the country for proxies hoping to secure enough to elect themselves or their friends to the controlling position

upon the board of one company, and then to use its funds in making mortgage loans upon the land which had fallen into their possession. The scheme fortunately was discovered a short time before the annual election of the company and frustrated.

The states have done something to prevent the abuse of the proxy system. These attempts have in the main aimed to prevent officers from maintaining themselves in office by intrenching behind a wall of proxies and to prevent any one from obtaining a proxy good for a long period. Massachusetts has a good law to obtain these ends. It provides that "members may vote by proxies dated and executed within three months and returned and executed on the books of the company seven days or more before the meeting at which they are to be used. No person as attorney or otherwise shall cast more than twenty votes, and no officer by himself or by another shall ask for, receive, procure to be obtained, or use a proxy vote."[1] A number of other states have some legislation upon the subject, but their provisions are in general much more liberal than those of the Massachusetts law.

If all the states having important life insurance interests were to place the above restrictions about proxy voting, no doubt much good would result. Especially would this be true if it would be found possible under

[1] Section 74, Chapter 118, Revised Laws.

certain restrictions to give policy-holders the privilege of having access to the names of the other members in their company. This right until recently has been denied because of the abuses which it is claimed would result from its exercise. Yet, if the proxy system is to succeed even moderately well such a privilege must be granted to policy-holders.

However, it does seem that the present system of electing trustees of mutual companies should be entirely changed. It is a system taken from other lines of business and adapted to life insurance companies. While it might be expected in a business enterprise in which a score or a hundred men are interested as shareholders that these men can most readily transact their business by some empowering others to act for them when they are not at the meetings of such stockholders, we have seen that there is little ground for expecting any such satisfactory results from governing a life insurance company in the same way. Life insurance on the mutual plan is not a business enterprise in the same sense that that term is used in other companies, and thus a system which works well in one instance does not as a consequence fit the situation in another.

There is one system of voting for trustees which has never been tried in this country, and which might be successful. It is impossible for policy-holders to travel many miles for the purpose of casting their ballots in

person, but it is possible that their will could be obtained on all important questions by mail, and especially as to whom they will have to manage their companies.[1] The objection to the plan which is met most frequently is the reputed heavy task of verifying the signatures of the voters. How this would be any more difficult than to do the same for the proxies is difficult to say. That the scheme is feasible is proven by the experience of the Australasian Mutual Provident Society which has used this method for years. The system is economical and it causes the members to take great interest in the company. If it could be adopted with the same success in this country it would be a great improvement over the systems now in use and the apathy which they produce among policy-holders.

This problem of the management of companies by their policy-holders has been discussed at length in a study of the investments because while our study is one of investment of assets it is the assets which make the control of a company so much sought after. It is not sufficient to remedy abuses which have occurred so frequently in the past that restrictions be placed upon the officers and penalties be inflicted when they are overstepped, or that directors be held responsible for the

[1] Mr. M. M. Dawson has urged this scheme in his "Principles of Life Insurance Legislation" and in other publications. Numerous others have endorsed the plan.

proper management of the investments, the policy-holders in a mutual company have a duty. Many of these policy-holders are men of wealth and influence, and if they object to the practices of the insurance companies let them say so. They have felt that they were powerless under the present system unless some great evils have been exposed causing a wave of indignation among the policy-holders which resulted in some concerted action. But they have also been negligent. For the departure of the companies from sound methods this lack of interest on the part of credulous and indiscriminating policy-holders is equally as blamable as the officers and directors.

If the recommendations which have been made in this chapter were carried out, it is believed that much that is mischievous in insurance management would be removed. It would be better that legislation follow the direction here indicated than to attempt to place strict regulations upon the investments. A right sense of responsibility intelligently applied is better than legal enactment. It is the duty of the state to find out precisely what the management of a company is doing, and to publish the facts which it learns. If this were done, and if the policy-holders had an easy and effective method, such as has been suggested, of expressing their will, most officers of insurance companies would be deterred from wrong-doing and those that were not would

be quickly replaced. How state legislatures are going to run the business of life insurance companies better by regulating investments, ratio of expenses, new business and other details is difficult to understand. It is safe to surmise that evils just as great will result as those which such legislation tends to eliminate. Under the recommendations which have been here made, able officers would be allowed to make the best investments of the funds of the policy-holders and the danger of an improper use of the assets would be largely abolished. Some more laws defining responsibility are needed, policy-holders should be placed in power, and severe penalties should be imposed for the non-observance of laws, but further than this not much can be accomplished by legislation.

CHAPTER VIII.

TAXATION OF INSURANCE FUNDS.

In the conduct of the business of life insurance, taxation has played an important part. Many different kinds of taxes have been imposed and even yet no well-defined principles of taxing the business have emerged from the confused mass of legislation upon the subject. The reason for the confusion is not difficult to find. The whole system of taxation in the various states has as a rule been exceedingly bad. Property of every description has been taxed, and corporation taxes have been grafted upon the general property tax. Many reforms in the system of taxation are yet to be made. The problem of how to tax corporations so that they will bear their share of the public burden has hardly had a fair beginning at its solution. In the case of insurance companies, the question of taxation has been further complicated by the widespread ignorance of the plan of life insurance and the purpose of its accumulated funds. It is not strange in view of the fact that the problem of taxing corporations which are engaged in trade and

transportation has not been solved that much confusion has prevailed in the taxation of insurance companies. Legislators have seen these companies accumulating large funds, apparently growing tremendously rich, therefore, they have imposed taxes upon them.

Before attempting to discuss what should be the principle of life insurance taxation, it will be well to see just what taxes have been levied on the business. In this rapid survey of these laws, those which imposed taxes upon gross and net premiums will be included along with those levying direct taxes upon the assets, for while the latter is imposed by the home state, the former taxes have been inspired by the desire to tax assets of companies which were without the state.

New York was one of the first states to impose a tax specifically upon life insurance corporations. In 1853, a tax of two per cent. was levied upon the annual gross premiums on the New York business of companies organised outside the State.[1] Two years later it was enacted by the same State that home mutual companies should pay a tax on $100,000 of personal property.[2] In 1857 New York imposed one of the first taxes on assets. Foreign corporations, that is, those outside of the United States, had been compelled to make a deposit in New York, and in the above mentioned year,

[1] Section 15, Chapter 463, Laws of 1853.
[2] Chapter 83, Laws of 1855.

it was provided that these deposits should be taxed as other property.[1]

Ohio in 1859 enacted that the personal property and assets of the life companies in that state should be taxed in the same manner as if belonging to individuals, and annual gross premiums of outside companies were to be taxed in the same manner.[2] In 1862, Massachusetts and Connecticut adopted the principle of taxing the accumulations of their companies, a plan which the latter has pursued consistently to the present time. Massachusetts levied a tax of one-third of one per cent. on the funds of the Hospital Life, then still doing a small life business,[3] and Connecticut imposed a tax of one-half of one per cent. on the total capital of mutual companies in that State.[4]

Two years later the taxation of assets appeared in an unexpected quarter. Kentucky in that year provided that the assets of companies in that State should be taxed at the same rate as was real estate, and companies outside of Kentucky should pay a tax of five per cent. on the gross premiums collected in Kentucky.[5] In 1867, Connecticut raised the tax to three-quarters of one per cent. on all the assets except real estate of her

[1] Section 1, Act of April 16, 1857.
[2] Section 16, Act of April 5, 1859.
[3] Section 3, Chapter 224, Laws of 1862.
[4] Section 6, Act of June 18, 1862.
[5] Section 5, Chapter 478, Laws of 1864.

mutual companies. Even real estate was to be included when it was not situated in Connecticut, and if in that State was to be taxed by the local government units.[1]

Delaware in 1869 devised a new plan of taxing her companies. In a law of that year, the companies organised in Delaware were compelled to pay an annual tax to the state of one and one-half per cent. of gross income received from premiums wherever collected and from investments wherever made.[2] Outside companies were taxed two and one-half per cent. on gross premiums on Delaware business.

It is thus seen that a number of states having insurance companies of their own were taxing their gross assets. To protect these companies against injury by the tax in the competition with outside companies, a tax could not be levied on the assets of the out of state corporations, but their premiums could be levied upon and the same result obtained, and thus along with the tax on assets went the tax on premiums of foreign companies. Now it was perfectly natural that when one state having companies of its own had levied a premium tax on companies from other states that those states should retaliate by levying taxes upon the premiums collected by the companies of the first state, and that is exactly what was done. Those states having no com-

[1] Act of July 27, 1867.
[2] Section 2, Act of April 9, 1869.

panies of their own, but seeing the revenue which other states were obtaining from the tax on premiums were led to impose such a tax themselves.

One other cause of the popularity of the premium tax must not be overlooked. The large and successful companies at this time were practically all in the East. We have seen how that State having the largest companies attempted to keep most of the assets confined to home investments. Certain sections of the West needed capital very much and looked upon the drains made by the insurance companies as a loss. Not only did some of these states attempt to make it obligatory upon outside companies to invest the reserves in the state where they originated, but they attempted to build up home companies by imposing a discriminating tax on out of state companies.

Thus by 1870, while only a half dozen states were taxing assets directly, no less than twenty-two were levying a tax of from one to five per cent. on gross premiums.

Since 1870, the situation in regard to insurance taxation has changed only slightly. Connecticut in 1872 reduced the tax on assets from three-fourths to one-half of one per cent.,[1] and in 1883, it was further reduced to one-quarter of one per cent.[2] New York which had been favorable to her companies since the inception of the

[1] Section 1, Chapter 88, Laws of 1872.
[2] Section 3, Act of April 1, 1881.

business in the matter of taxation imposed a tax of one per cent. upon the income received from investments represented by, or based upon property situated in New York State.[1] Fortunately for the interests of that State, this unwise measure of the Assembly was never enforced owing to a small technicality in the law. If it had been enforced it would have driven the investments of the large companies in that State to outside securities, and New York would have been deprived of that aid which her insurance companies have always given.

It was about 1880 that the tax on assets became most popular. In the same year that the New York act was passed, Massachusetts levied a tax of one-half of one per cent. upon the aggregate net value of all the policies in force in her companies. It was realised before the law had been in force a year that it was unjust, and the next year it was reduced to one-quarter of one per cent., and subsequently it was removed entirely.

In 1898, the Legislature of Wisconsin passed a law imposing a tax burden upon her life insurance companies exceedingly heavy. They are to pay three per cent. of their gross income from all sources, except from real estate upon which they otherwise are taxed and excepting premiums collected outside the state of Wisconsin.[2]

[1] Laws of 1880.

[2] Section 1220, Statutes of 1898, as amended in 1899 and 1901.

Virginia in the comprehensive revision of her tax laws in 1902–3 levied a tax upon the assets of life insurance companies. The real and personal property of every company is now taxed at the rate of thirty-five cents a hundred. Besides this a license fee of two hundred dollars is exacted and a tax of one per cent. on gross premiums is imposed.[1]

At the present time four states are taxing gross assets or the income from gross assets. Michigan, Missouri and Vermont tax the net assets, or the surplus of their home companies. Massachusetts, Minnesota, and Tennessee among others have a fee for the valuation of policies which in reality amounts to a considerable tax. A dozen states tax the gross premiums of their home companies, in a number of cases no matter where the premiums are collected. Three levy on net premiums, and several tax the premiums collected by home as well as foreign companies as personal property of the agent collecting them or of the company to which they are sent. More than two-thirds of the states have taxes upon gross or net premiums collected within their boundaries by outside companies. Besides these taxes on assets and on gross and net premiums by home states and by other states in which the companies are doing business, there are a large number of license fees and various other charges which the companies have to pay.

[1] Section 23, Act of April 16, 1903.

These charges are usually small, but in the aggregate they constitute a considerable burden upon the business. In nearly every state the insurance department is more than sustained by the fees which it receives.

The effect of these taxes upon particular companies and upon the states which have levied them will be considered later. However, it should be said in passing that the annual tax burden upon life insurance companies is not far from ten million dollars.

Needless to say there has been much opposition to the above taxes. While this opposition has been justifiable, the grounds on which it has been built have not always been sound. Those interested in the welfare of the system of life insurance have attempted to excite a sentimental feeling against the laws, and in doing so they have not always used sound arguments. One of the most common reasons that have been urged against the taxation of insurance assets has been that these assets are a provision laid up by provident people for the future. Undoubtedly this is true. But all capital is a provision for the future, and in attempting to differentiate insurance savings from other savings, the opponents of taxation have not succeeded in establishing their point.

Again it is usually argued that a tax upon insurance is a tax upon a tax. The claim is made that the premium paid for insurance is in itself a tax for the relief

of distress and misfortune, and that the state in levying upon these premiums or upon the assets increases the burden of an already existing tax. By imposing the tax, the state adds just to the extent of the tax to the cost to the members of an insurance company of making losses good to the individual who has suffered. Therefore, this tax exacted by the state, it is urged, is an injustice and as such should be abolished. This argument overlooks one condition which is necessary. We might imagine a community in which every citizen carries insurance on his life in proportion to its value. In such a condition of society the premium would be a tax which each citizen would pay in proportion to the value of his life to provide a fund for the payment of losses to any member of the community, and a tax upon insurance would be a tax upon a tax. However, when only a small proportion of the community carry insurance, the payment of the annual premiums cannot be considered as a tax, for a tax is exacted with some regard to equality in its effects. As long as some men make provision for the catastrophe of sudden termination of earning power in other ways than by insurance, or no provision at all, so long can a tax upon insurance not be considered as a tax upon a tax.

However, there are vital objections to the policy of taxing the insurance business. It must be admitted though that many of these objections do not apply only

to life insurance taxation, but to many other taxes which are now levied. Take the case of taxing assets with which we are primarily interested. It is a fact that most states tax bonds, stocks, notes, and cash when they are held by private citizens and the question immediately arises why should they not be taxed when held by a group of individuals when associated together in an insurance company. Even a considerable number of states tax mortgage loans when made by individuals, and when this is done, those individuals cannot be persuaded but that the same sort of securities should be taxed when in the possession of insurance corporations. If taxed in one instance, they should be taxed in the other, but if the whole system of taxation were worked out on better principles, such assets would not be taxed no matter by whom owned.

Any one who has made even a casual study of taxation in the United States realises how difficult is the solution of the problems found in that field. Many of these problems are wellnigh insoluble because of the various units into which the country is divided, and because of the interstate character of much of the business of various corporations. The result of having many independent governmental units has been much double taxation. Thus a corporation is frequently taxed upon all its wealth in one state, and then, if its bonds and stocks are owned in another state, they are taxed by that state, and even not infrequently are they taxed when owned in the

same state where the corporation is located. An application of this principle of taxation is found in Massachusetts, which in most respects has had good legislation. This state taxes the securities of corporations located in Massachusetts no matter where owned, and also taxes the securities of corporations located without the state which are owned by Massachusetts citizens. If the other commonwealths had the same law, to which Massachusetts could not deny their right, there would be double taxation of all securities owned outside of the states chartering the corporations.

Without going into any elaborate discussion of remedies for the present methods of taxation, there is one which would solve most of the difficulties of double taxation. Let the states give up the plan of taxing wealth, and at the same time evidences of ownership in that wealth. They do not tax an individual who possesses a deed for real estate located in other states. Then why tax the stocks of a corporation located outside the state? These are not wealth, they are evidences of ownership just as is the deed to the real estate, and if it is right that the deed should be exempted, it is right that the stocks should not be taxed. It would be best to exempt both, for in no other way can double taxation be prevented.[1]

[1] For a more elaborate discussion on this point see Irving Fisher, "The Nature of Capital and Income," Chapter 2. Macmillan and Co., 1906.

That mortgages should not be taxed has often been demonstrated by experience. A loan upon real estate does not create any new wealth, and to tax both the real estate and the mortgage is double taxation. It has been found that the borrower gains when the tax is placed upon the real estate, and when no attempt is made to levy upon the mortgage. Bonds of corporations are similar to mortgages, and though the effect of taxing them to the holders has not been seen so clearly as in the case of mortgages, yet the same principle applies to both, and neither form of loan should be taxed.

All this bears directly upon the taxation of insurance companies. If the states would tax corporations upon their wealth where it is located, and not attempt to tax the multitude of holders of corporation securities, and would tax real estate and not the mortgage upon it, if all this were done, then insurance assets would not be taxed, for they consist, as we have seen, of mortgages, bonds, and stocks. Thus if the above principle of taxation were adopted, the problem of taxing insurance companies upon their assets would be solved. The objection to taxing these assets is not that they belong to companies which have the worthy object of relieving distress, but that such a tax should not be levied on the kind of assets which they possess no matter to whom they belong.

Not only does the taxation of insurance assets by the

state where the company is located result in much double taxation, it is peculiarly unjust as it levies a tax on wealth which is without the state and owned by citizens without the state. No successful insurance company has gathered its assets even for the most part from the savings of citizens within the state where it is located, savings have flowed into it from every part of the country, these to be held, invested and accumulated at interest, and yet the state in which the company is located claims the right to tax all these savings even if they do belong to citizens without the state. An insurance company must have a habitat in some state, but the fact that some one state is fortunate enough to have a successful company established within its boundaries does not give it the moral right to tax all the assets which that company possesses. If those states with companies doing business throughout the country are going to continue the taxation of property rights of persons, and thus those possessed by their insurance companies, they should be consistent at least and tax only that portion of the assets which belong to citizens of their states, leaving to other states the right to do as they please with the portions belonging to their citizens, but which for the time being happen to be stored away in the vaults of the home office in another state.

If the above objections to the taxation of insurance companies by the state in which they are located do not

appeal to the lawmakers of that commonwealth, there is an objection which will. No one can doubt the value of a successful life insurance company to a state through the free (*i. e.* loanable) capital which such a company is constantly bringing to a state. Whether the state forces the company to invest in home securities or not, there will always be a tendency for a large portion of the funds to be invested in the home state. Other things being equal, the finance committee of a life insurance company would rather invest its funds in enterprises with which they are familiar than of those further away. Many of the barriers to an easy flow of capital have fortunately been broken down, but it is doubtful if capital will ever become completely mobile. Therefore it is of great importance to the financial interests in a state that it have insurance companies which are constantly bringing in capital. If this is true, then the legislators of a state should hesitate long before placing any burden upon their companies which will hinder their legitimate growth. By levying a tax upon the companies which it has created, a state may handicap them greatly in the competition with companies from states which are not so taxed. As a result, their assets accumulate slowly in comparison with other companies and the loss to the state of financial resources may more than offset the gain in revenue from the tax.

It is impossible to point to the companies of any

state and say their growth has been retarded by the taxes which have been imposed upon them. We can say, however, with considerable assurance, that the tax burden has had a serious effect. Take the case of the Connecticut companies which have been taxed on assets now for more than thirty years. There is reason to believe that these companies have, in general, been ably managed. They got a good start and an early one, why did they begin to fall behind three decades ago? The following table throws light upon the situation.

Total Taxes Paid by Eight Selected Companies for the Ten Years, 1871–1880:

Company.	Rate per $1000 of Mean Annual Assets.
Aetna	$5.26
Phœnix	5.59
Connecticut Mutual	7.22
Northwestern	2.01
Mutual Life	2.05
Equitable	2.67
Mutual Benefit	2.72
New York Life	2.05

The heavy taxes of the Connecticut companies decreased their dividend-paying power, and it is the dividends by which policy-holders measure the companies. Since 1882, when the tax on assets in Connecticut was cut to one-half of its previous amount, the difference in

burden upon Connecticut companies and those of other states has somewhat diminished, but through the whole period the tax has been heavy. If the tax did contribute largely to checking the growth of the Connecticut companies, it is a fair question whether the increased amount of capital which otherwise would have come to the State would not have been of more general benefit to the State than the revenue which has been secured by taxing the insurance business.

Kentucky is a state which has taxed its own companies heavily, taxing assets at property rates. The law has defeated its own ends, for life insurance companies have not thrived at all in that State, and hence, not only is the State deprived of the financial assistance of insurance accumulations, but no revenue is produced. It would be rash to say that the tax on assets was the only cause of the failure of insurance companies in Kentucky, but it is a sufficient cause, and the one given for the reinsurance of a promising company in that State a few years ago.

Thus, taxation of insurance assets is a mistaken policy for a state to pursue. First, such a policy is wrong in principle, for it results in double taxation; secondly, it violates our sense of justice, for its taxes assets really belonging to persons outside the state; and lastly it is an inexpedient policy, if the tax is made so onerous as to check the growth of the insurance companies.

Many of the objections which have been made to the policy of taxing insurance companies' assets apply with equal force to the taxation of premiums. For the most part these taxes have been levied on the premiums paid by citizens of one state to companies of another. What is the justification of such taxes? In the first place, it is said that such taxes should be levied because the companies have large assets, some of which belong to people in the state levying the premium tax, and since these assets cannot be reached for purposes of revenue, the state must have recourse to the premium tax. In reply to this, it is obvious that if the state where the assets are located should not tax them, then no other state should attempt to do so.

Again taxes on premiums are advocated on the ground that they are necessary to secure justice among the citizens of a state. Suppose, it is argued, that there are two men in the same locality who have equal earning power and that each saves the same amount of his earnings. One of these men does not feel the necessity of insuring his life, and with his savings buys bonds or stocks of some corporation. The other buys a level premium life insurance policy. Since the man who buys bonds or stocks is usually taxed, the advocates of premium taxation claim that the man who buys insurance should also be taxed. There is some truth in this claim especially when endowment policies are pur-

chased, but under the system of taxation which we have advocated, neither man should be taxed. The purchaser of stocks should be taxed only once and then through the corporation, and so far as the man who buys insurance is laying up capital, it is invested in the same securities and thus would be taxed in the same manner as the other man's investment. To levy a tax upon each one again is double taxation.

Even if a state decides that premiums must be taxed in order that justice be done to all its citizens, it does not follow that it has a right to collect the tax from the insurance companies. The companies have a fixed contract with their policy-holders. The annual premium is determined when the contract is entered into, and it cannot be increased by the company no matter how urgent are its needs. When a state levies an extremely heavy tax upon premiums, the life insurance company cannot return the reserve upon its policies in that state, thus terminating its contracts and in this way avoid the tax. The state demands that the contracts be carried out to the stipulated time and for the amounts previously agreed upon, yet at the same time assumes the right to exact payments from the companies which may imperil their ability to carry out their obligations. This is unjust in principle, and if taxes are to be levied upon the insurance business, the right should be given to the companies to increase their premiums proportionately

to the tax, or better, the tax should be imposed upon the policy-holder directly.

We conclude then that taxation of life insurance assets and premiums is wrong. If it is wrong, the taxes should not be levied. Life insurance is not a business which requires repressive measures in the way of penalties for its continuance. The beneficent characteristics of life insurance are so well understood in most countries that the companies carrying on the business in them have been fostered and protected and not in general been burdened by heavy taxation. In England the companies have to pay the income tax on investments, but this corresponds to our corporation tax and is not a second tax upon assets. In striking contrast to the almost universal premium tax in this country, England does not levy such a tax, but rather offers a reward for saving in this direction. Each policy-holder who is liable to the income tax is allowed to deduct in his return the amount of premiums paid by him on life insurance policies up to the extent of one-sixth of his income.[1] Holland in the laws in the early nineties which introduced the taxation of capital and of income in that country particularly favored life insurance. In the law imposing a tax upon capital, life insurance policies were exempted from taxation, and the income tax law allows life insurance premiums up to an amount of forty

[1] Statute 16 and 17 Victoria.

dollars to be deducted from the income which is liable to taxation. This fair treatment of the insurance business by England and Holland is due to a considerable extent to the progress which has been made in those countries in all matters pertaining to taxation in general, but it also shows a knowledge of the true nature of the life insurance business which has been so sadly lacking in this country.

Before concluding this chapter it should be said that all taxation of insurance companies should not be abolished. If these companies own real estate, they should be taxed on its value just the same as if it belonged to a private individual. However, they should be taxed on it only where the property is situated, and not twice as Connecticut taxes the companies in that State. When these own realty outside of Connecticut, of course they have to pay a tax upon it in the state where it is located, and then Connecticut also levies a tax upon it. Let the companies pay a tax upon it but only once. Again, if a company is carrying on a life insurance business upon the stock plan, the state should tax the capital stock or the dividends upon it just as it taxes other capital stock. That would only be just. What has been urged in this chapter is that those laws which levy taxes upon the premiums in one state, and then upon the assets or income from investments in another, resulting in double and often triple taxation, should be abolished. Special

favors for the insurance business are not advocated. Only those reforms in the system of insurance taxation are desired which a clear comprehension of the system of old line life insurance would indicate as right and just. It is not expected that these reforms should be made in insurance taxation alone. As has been pointed out the changes should come about through a general improvement in the whole system of taxation.

CHAPTER IX.

SOCIAL EFFECTS OF THE ACCUMULATION OF INSURANCE ASSETS.

From preceding chapters some idea has been gained of the important effect life insurance has had upon the economic life of the country during the last fifty years. During this period, the accumulations of the companies have grown from nothing to nearly three billion dollars. Three billion dollars have been taken out of current earnings of three million policy-holders and added to the capital engaged in productive enterprises. That this has influenced greatly the industrial development of the country no one can doubt, and not only must the level premium companies be considered as agencies furnishing insurance, but also as institutions favoring the accumulation of capital.

However, the assets which the companies have in their possession at the present time do not represent all the savings of capital which must be attributed to them. All the time during which these assets have been accumulating, the companies have been paying death claims, dividends, and surrender values, and these

amounts represent savings from income in years past. When these claims are paid, the capital is usually not dissipated but invested by the beneficiaries. Hence, the level premium companies have brought into existence a fund of savings which includes not only the assets now in the hands of the companies, but some three or four billion dollars now in private hands which has been paid by the companies in death claims and maturing policies. This makes a total of six or seven billion dollars of savings attributable to this system of life insurance.

Is it good that these savings should have been made, and would so much have been saved if the insurance companies had not existed? In answer to the first question, it is extremely desirable that most men should save something out of their annual earnings. Unless they do so, there can be but little progress made by the individual or by society. The accumulation of capital alone has rendered practicable the great discoveries of mankind in geography and in the natural and applied sciences. All material progress demands large amounts of capital and if the insurance companies have been the agency through which capital has been saved which otherwise would have been dissipated in the enjoyments of the hour, they have rendered an important social service.

In all probability, a great part of the savings made by insurance companies would not have been accumu-

lated in any other way. The amounts which they have taken each year from the individual policy-holder have been exceedingly small. In 1870, the average premium on each policy of all the companies doing business in New York was only ninety-six dollars. In 1890, it was one hundred and seventeen dollars, but it has since decreased to an even hundred dollars. Some of these premiums would have been saved in other ways if there had been no life insurance companies, for insurance appeals only to the prudent class in a country and a prudent man will save, but the difficulty of investing such small amounts each year must be taken into consideration. Savings banks could not have been used for even yet only a few states are supplied with such institutions. The average man who saves only a little from each year's earnings cannot enter the investment field for himself. He cannot take a hundred dollars and make a loan to a Western farmer. He might be able to buy one bond of some corporation, but the usual small saver is unacquainted and distrustful of such securities. Confronted with the difficulty of investing small amounts of capital, much of it never would have been saved if it had not been that the insurance companies with their organised agency forces have constantly kept before the public an easy and eminently safe method of investing in protection. Furthermore, the companies have not waited for people to come to them with their savings,

but they have sent their agents to the individual to set forth the advantages of what they had to offer. In this way the savings of a class of people who are able and desirous of making small annual savings, if the opportunity is given them, have been gathered by the insurance companies.

In addition to the class of people who are able to save, but not to invest, there is a class, and a much larger one than is commonly supposed, which cannot save anything unless there are certain definite payments which have to be made at fixed times during the year. To this class, level premium life insurance is peculiarly adapted. The premiums are fixed, they can be divided into small payments, and they fall due at regular periods. Once insured, the policy-holder cannot stop paying or withdraw his investment without suffering some slight penalty. Many men with spendthrift dispositions have taken insurance, and the reserves upon their policies are savings of capital which would otherwise not have been made.

It is not claimed that some of the savings turned into the life insurance companies would not have been made if there had been no insurance companies. The investment element in the policies has in many cases been a simple substitute for other investments, and if the investment policies had not existed the other investments would have been made. We refer to the endowment

business of the companies already discussed and which we believe has been carried too far. On to the pure indemnity policies have been grafted endowments and various investment schemes, and agents of some companies have so pushed the investment business that not a few of their companies partake more of the nature of savings banks than of insurance corporations. But even not all of the investment policy business is to be condemned. Such policies are admirably fitted for a large number of people especially the classes of small savers and easy spenders which have been noticed above. However, it must be true that many men have been induced to purchase endowment policies who should not have done so. They could have used the extra cost of capital to better advantage in their own business. For this the companies and especially the agents are to blame. The desire for insurance has played the large part in getting business, but too often false representations are made to prospective policy-holders about the advantages of investing in endowments. As a matter of fact, most men engaged in business enterprises or those who have access to good savings banks can ill afford to invest in endowment insurance. The expenses of the investment are too heavy, and the insurance company cannot loan the money at so good a rate as a man in business can get from his investments. Therefore, that portion of the insurance assets which have been taken from men who

need capital, but who have purchased endowment policies, has meant an economic loss to the country. Capital has been taken from where it could earn eight per cent. and placed where it was worth only five or six per cent.

However, as the endowment business forms even at the present time only about one-fourth of the total business of the companies, we cannot consider that much loss has resulted to the country from the investment in endowment policies by men who are able to make good investments for their own capital and at a slight cost. Many of the investment policies have been taken by small savers who could not have made investments for themselves. Such men always have to pay high for what they get, and it has been far better that they would have saved something even at a high cost than to have saved nothing.

Therefore, we are led to conclude that the life insurance companies have been the direct agencies by means of which tremendous amounts of capital have been taken out of current earnings and added to the existing supply in the country.

The funds when once in the possession of the companies have not been kept as idle cash. They have been invested, and the result has been that many lines of industry have been benefited. In discussing just what influence these large accumulations have had, the first

thing to notice is the effect upon the distribution of capital between the various sections of the country. The life insurance business has been localised so far as the situation of the companies is concerned. Outside of five or six states in the East, there are only two companies which have obtained much size. Although the companies have been located in the East, they have written insurance in every state. It has been frequently claimed that bad results have followed from this situation. It is urged that the companies located in a small section of the country have, through the collection of premiums, drained capital from other places where it was much needed, and have added it to a section already well endowed.

Formerly the complaint against this effect of the insurance business came largely from the middle West. To-day it is coming from the South. A few years ago when Mr. Culberson was Governor of Texas in a message to the Legislature of that State, he declared that Texas from 1886 to 1887 had sent out twenty-five million dollars more in premiums to insurance companies than these companies had returned in the same period. He ascribed much of the difficulty in getting capital in Texas to this drain and pointed to the plethora of capital in New York, to which place most of the premiums had gone.[1] Last Fall a Southern writer pointed out

[1] The Insurance Spectator, 1897, Volume 58, Page 38.

that in 1903 residents of Southern states paid fifty million dollars in premiums to Northern companies.[1]

We saw in a previous chapter that the belief that their states were being depleted of capital led certain legislatures to pass laws compelling the investment of the reserves in the state where they originated. A great number of taxes have been levied to stop the supposed flow of capital, and public-spirited citizens have been concerned as how to build up home companies in order to keep the insurance premiums within the state.

Have there been any grounds for believing that the location of the companies has been a disturbing feature in our economic development? The answer is that the location of the home office of a company in a particular state does not ipso facto affect the distribution of capital at all between the various sections of the country. A company may be located in Portland, Maine, and make its investments in San Antonio, Texas. The payment of premiums to an out-of-state company does not necessarily mean that capital has gone out of the state. Even the checks by means of which the premiums are paid may never have gone to the home office of the company. They may be deposited in a local bank, and the company may make loans on mortgages on real estate in that vicinity, or buy municipal bonds or bonds of a rail-

[1] New York Times, September 3, 1905.

road in that state. In that case, there has been no drain of capital out of the state.

If many of the premiums have been collected in states needing capital as evidenced by a higher rate of interest than in other sections, the tendency would have been for capital to flow to those states. Theoretically, the companies make investments where the rate of interest is highest, and therefore, the location of the company has no harmful effect upon the distribution of capital in the country.

If there is nothing in the location of the companies which in theory makes necessary a depletion of capital in one section of the country, why has there been so much complaint about Eastern companies? There are three reasons. First, men have not seen clearly and understood its significance the fact that the funds could be owned in Boston and the capital in which they are invested located in Illinois, thus giving to Illinois the advantage of the accumulation of insurance assets.

Secondly, capital in actual practise has not been so mobile as to respond readily to the most urgent demands for its use. It may go where it is most needed, but it goes slowly. A man in New York hesitates to invest capital in Texas. It is too far away, he cannot estimate the risk, and the result is that he invests nearer home. It will be seen later that this timidity of capital has not

affected insurance investments a great deal, but nevertheless it must be considered.

The third cause for complaint by certain sections is a just one. There has been an abstraction of capital from certain regions and it has not always been returned. The reason why the return investments have not been made by the insurance companies is the state laws which have been imposed upon them. No matter how much managers of life insurance companies may have wanted to invest the funds in certain localities, they have not always been allowed to do so. This has not been a fault of location except in the sense that if a company happened to be located in New York, for years it was not allowed to make mortgage loans outside the state, and there were many sections which needed capital which had no other security to offer for loans than real estate. Thus it is seen that the complaint about the location of insurance companies having a bad effect upon the distribution of capital in the country has been partly due to ignorance of the distinction between capital and its ownership, partly to the immobility of capital and partly to state laws.

That the state laws have had a greater effect upon the investment of the insurance funds than timidity of the management in investing is shown by the fact that whenever the state in which the companies are located have not placed restrictions in the way, many of the pre-

miums have been returned to the states from whence they came through loans and investments. If New York had not for years attempted to keep a large part of her companies' assets invested within her borders, much of the sectional difficulties which have resulted in laws and taxes would have been avoided. The Connecticut and Massachusetts companies, not confined to one state for their investments, sent capital to those regions where it was much in demand, and in so doing relieved to a considerable extent the unfortunate situation of having the large companies nearly all in one small section of the country.

It would be interesting to know how great has been the influence of insurance funds upon certain sections of the country. For years, money was five per cent. higher in the West than it was in the East. At that time, the Eastern companies which were permitted to do so sent large amounts to the West to be invested. No one knows the beneficial effect that the Aetna of Hartford had in Illinois from the system of small farm loans which it pursued at a time when the farmers could scarcely get any capital whatever. The Connecticut Mutual carried out much the same policy but loaned more on city realty. President Greene in 1896 stated that in the fifty years of the existence of the Connecticut Mutual it had loaned one hundred and forty million dollars to sixty thousand Western men, an average of

two thousand dollars to each man. The rate of interest on farm mortgages in the great agricultural states might have come down to its present level of five per cent. and even lower without the aid of insurance assets, but it is doubtful. The Northwestern has had thirty million dollars invested in mortgages on real estate in Illinois alone, and to those loans much of the prosperity of the agricultural interests in that State is due. What the Northwestern has done for Illinois, the Union Central has done and is doing for Ohio and Indiana, though perhaps not on so large a scale. Mutual Benefit funds have also been sent out West, much to the advantage of that section as well as of the policy-holders in the company. At the present time life insurance money is being used extensively in the development of Oklahoma, through loans upon the only asset which the territory possesses, namely, rich farming lands.

How important have been these loans to Western states is seen by the experience of Missouri more than a score of years ago. The Legislature of that State passed a law placing severe restrictions upon foreign corporations loaning money in Missouri, and the result was that the life insurance companies refused to loan any longer in the State. Money had before the enactment of the law been freely secured in Missouri at six per cent. upon long time farm mortgage loans. After the law went into effect the rate nearly, if not quite,

doubled. This single example shows how great has been the influence of the life insurance assets upon the development of that large area enbodied in the North Central states. The effect of the investment of insurance capital can be seen clearly in this region, for it was without any capital only a short time ago. Because a number of the states where the companies were located did not restrict the investments to any particular region has this return flow of capital to the states where much of it came from, and where it was needed, been possible.

Doubtless life insurance assets have had as much influence upon the development of railroads as they have had upon the agricultural interests in certain sections. Perhaps they have had even more effect, for a larger amount of capital in proportion to the total capital used in railroad development has been furnished by the insurance companies than they have supplied to agriculture in proportion to the total invested in that industry. The insurance companies have not been pioneers in railroad building, at least not to any extent, but when the roads have once been put upon a paying basis, the insurance corporations have been large purchasers of their securities. Thus have they freed private speculative capital of staying in secure enterprises, and have allowed it to be used in building new roads.

The insurance accumulations have had an important effect upon public loans. While many such loans now

bear a rate of interest too low to be attractive to the insurance companies, and as a result the companies are not large purchasers of them, this was not the situation only a short time ago. For years the companies were heavy bidders for public bonds and even yet absorb a considerable number issued by the smaller governmental units, such as school districts, which cannot float their securities as readily as the large cities. The insurance accumulations have made it easier and cheaper for public improvements to be made, and while the very eagerness of the companies and other financial interests to secure public bonds may have led to some extravagance on the part of the counties and municipalities the blame for this cannot be attributed to the companies. Life insurance assets have helped to make it possible for public bodies to borrow capital at a low rate of interest and this of itself is a highly desirable situation.

Not only have the funds gathered through the agency of the life insurance companies affected particular industries directly, they have indirectly affected all. The rate of interest has declined sharply in the last thirty-five years. Whatever have been the causes of this decline, certainly the accumulation of capital by the insurance business has been an important influence. This lowering of the rate of interest has been conducive to greater prosperity of the country in general. Therefore as one of the agencies which have made the lower rate

of interest possible, the insurance companies must be given considerable credit.

To the beneficial effect which insurance funds have exercised upon the development of the resources of the country no one objects. Regarding the companies as savers of capital, the desire is universal that they should continue to increase rapidly in assets. However, from time to time a note of alarm has been sounded that dangers may result from allowing unrestricted growth to the companies, and of late this alarm has been expressed frequently. It has been experienced in the United States that individual plutocrats have by the unlimited wealth which they command been able to control railway and other finance. It is pointed out that our life insurance companies are becoming vast financial corporations and may become a source of danger to the public by reason of the large money power lodged in the hands of a few men. Because of this possible danger, there has come a demand that the states should limit the business of the companies so as to keep their funds from threatening dimensions.

Before the states can limit the business of the large companies, they must decide when they are large. When is a company big? In the seventies when the largest company had about eighty million dollars of assets, there was a discussion about limiting the dangerous growth of insurance corporations. In the early nineties,

the largest companies were approaching the two hundred million dollar mark in assets, and again the question of restricting their growth was debated. Now the companies which have made the biggest growths have over four hundred million dollars of assets and if there is any limitation of business it must be somewhere beyond the present amount of assets. The company with ninety million dollars of assets is not now considered as possessing dangerous power, there are questions connected with its management which are of vital importance, but these are not such that make it necessary to restrict its growth. May it not be that in twenty years more, five hundred millions will not be considered a dangerous amount of assets?

There is nothing in the nature of the case that makes danger from large insurance assets inevitable. A group of speculators upon the market find it to their interest at times to derange prices, to stop industries, and to cause widespread commercial depression. Even political disturbances, such as war between nations may sometimes suit their purposes. This is not true of life insurance companies, if they are managed for the welfare of their policy-holders. Insurance companies, if ably managed, will exercise only a beneficial effect in the financial world. They will only make the most conservative investments and be only in favor of financial tranactions that are constructive and conducive to

stable prices, never in favor of anything that is destructive. They will always desire peace, and never want war. If a management desires anything else but these things, it means that the funds are being misused, this is not a fault of size, but of the management.

The companies cannot increase in assets indefinitely. There is a natural limit to their growth. Some day the outgo will equal the income, and even may be in excess. This result will come about through the operation of the law of mortality and the problem of size will then be solved. The states should do nothing which tends to give the large companies unusual advantages in competition, and to this end should remove some of the obstacles in the way of forming new companies. Under the present conditions new companies are so hard to organise and get started that those established have almost a monopoly. With different laws this monopoly feature could be removed.

Already the large companies are not holding their own in the competition with smaller ones. For years it did look as if a few large companies were going to absorb most of the life insurance business. In 1873, three companies had thirty-one per cent. of all the business done by companies reporting to the New York Insurance Department. This percentage steadily increased until in 1894, the three largest had fifty-five per cent. of the total business. However, the percentage

began to decrease so that in 1900 the three only had forty-six per cent. of the business. Not only are the three largest showing a relative decline, but also are the six largest and even the ten largest, which shows that not only are the smaller companies maintaining their position, but are absorbing each year a larger proportion of the business.

If the business of the larger companies were limited by law, is there any reason to believe that the same amount of insurance would be written as if there were no restrictions? It is hardly possible, and if there would not be, then the accumulation of capital through the agency of insurance companies would be checked. While an increase in the amount of capital is not to be purchased at the price of grave social dangers, yet the state must be sure that such dangers would be the penalty of allowing free growth. There are methods of control and reform in management which should be given a trial before the extreme measure of limitation of business is adopted.

Since there is nothing in the nature of life insurance which must necessarily lead to political corruption or to the abuse of power in the financial world, the limitation of business is a confession that men cannot be found who can be trusted morally with the responsibility of managing large trustee funds. Nothing which has been disclosed in the investigation of any company of im-

portance has shown that the officers and trustees were not mentally capable of handling the companies well. The trouble has been with lax morals. It is hoped that these can be reformed, and the companies allowed to go on accumulating assets to the gain of the individual policy-holder and of the country in general.

Life insurance has rendered a signal service to the country. It has compelled those who have insured to exercise economy, and this has influenced their careers for good. It has gathered together innumerable small savings and has made them available for the development of our resources. Mistakes have been made in managing the funds, problems remain yet to be solved, but these should be met in a spirit of encouragement to the business, for life insurance should be encouraged. The companies relieve distress which can be relieved in no other way, and accumulate capital which otherwise would be dispersed.

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